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ABSTRACT

This report examines how students, especially those with high abilities, choose a college based on information from four areas: (1) published research comparing various schools' subjects as well as some unpublished comparative data from various sources; (2) young adult fiction that deals with issues related to college choice; (3) media accounts of college admission and college choice; and (4) conversations with other students in the process of choosing colleges. The report discusses the basis for the choices made by students, the other people who influence choice, what students and parents want to know about colleges and what they already know, and the financial and psychological costs associated with getting into college. The book concludes with observations about what is really known about college choice decisions, the problems with students' sources of information, behavioral considerations, and a discussion of some of the public interest and policy questions needing to be addressed. Contains 86 references. (GLR)

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Selective Admission Series

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Ivy Bound: High-Ability Students and College Choice

Larry H. Litten

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Ivy Bound: High-Ability Students and College Choice

Ivy Bound: High-Ability Students and College Choice

Larry H. Litten

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Director of Research
The Consortium on Financing Higher Education

College Entrance Examination Board, New York

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Foreword

Each year, nearly one and a half million students across the country move directly from secondary school to the more than 3,000 colleges and universities in the nation. In addition, thousands of students enter higher education following a period of work or military service. This process whereby millions of young men and women annually choose, or are chosen by, colleges has been aptly described as "the great sorting."

In 1988, the College Board set out to conduct a comprehensive review of this great sorting—how students are distributed and distribute themselves across the variety of institutions of higher education in the United States—in an effort both to determine the extent to which the process serves the interests of students and institutions and, indeed, of the nation, and to demystify for parents and students the often-bewildering set of admission practices and procedures that mark the transition to college.

With the advice of professionals and experts in counseling, admission, financial aid, curriculum articulation, public policy, and professional associations, the *College Board Study of Admission to American Colleges and Universities in the 1990s* encompasses two series of monographs. The "Selective Admission Series," conceived by our

colleague Fred A. Hargadon, Dean of Admission at Princeton University, and conducted under his leadership, addresses issues with particular implications for the more selective institutions (or, as Dean Hargadon has suggested, "institutions that engage in the process of selecting a class") and for the students who attend them. Recognizing that the majority of college-bound students attend a greater variety of institutions of higher education than those represented in the first group, the "Admission Practices Series" addresses additional issues of importance and concern to the educational community as a whole and the public at large. The two series are closely related and integral to the study.

During its history, the College Board has played an instrumental role in promoting consensus on ways to improve the efficiency, effectiveness, and fairness of the system of admission to college and the processes that surround that system. At a time when the means by which students find their way to particular institutions of higher education are marked with particular complexity, it is fitting that the College Board, as a unique membership association of schools and colleges, attempt to assess the degree to which the system as a whole serves the needs of the parties involved.

We owe special gratitude to the individuals who agreed to take on the task and the challenge of studying various aspects of the "great sorting" and, through these monographs, to describe the intricacies and strengths of our system of college admission.

Donald M. Stewart
President
The College Board

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1

Information on College Choice

The selection of a college has been hailed as "one of the most important and difficult" of life's many decisions (Miller 1990). Each year it involves more than two million American students, along with their families and school personnel, in the expenditure of substantial amounts of time, effort, and money. This monograph explores what research and literature reveal about how students choose the colleges they attend, especially the high-ability students who are most likely to apply to selective colleges.

I have drawn upon four types of sources: (1) published research on college choice and some unpublished data from studies in which I have been involved, (2) fiction written for young adults that deals with issues related to college choice, (3) media accounts of college admission and college choice, and (4) personal conversations with students who are in the process of choosing colleges. (Hossler, Braxton, and Coopersmith, 1989, provide an excellent review of the broad

research literature on college choice. I have generally cited studies included in that work only when the studies focus explicitly on high-ability students, or when addressing different concerns from those dealt with by Hossler et al. Readers who desire a review of the more general research on college choice should consult their work.)

Most efforts to understand college choice have concentrated exclusively on the findings of formal social research. Although this is a critical viewpoint from which to seek insight concerning this subject, I have elected also to consider the perspectives afforded by the other sources noted above in an effort to provide a more complete picture. I sought young-adult novels that dealt in a serious and extensive manner with youth who were choosing colleges. My initial intention was to use these fictional materials to illustrate and enliven the research data. I quickly learned, however, that the two approaches focused on strikingly different phenomena viewed from very different angles.

The Limits of Our Means

We are looking for patterns and meaning in very complex phenomena. Both social environments and personality vary widely, and the interactions of the two create further permutations in the college-choice process. To the degree that we capture any reality in our descriptions of college choice, it is necessarily a multiplicity of realities. Yet, we must simplify. Statistical representations are frequently used in social research to describe social reality. However, even though the majority may be behaving in a certain way, there is always a minority behaving differently. A modal (or most common) behavior fails to represent the other behaviors that fill out the picture. A statistical average has people on either side of it.

In addition, what we observe depends on both the specific questions asked and the research methods used. Social research on college choice has relied principally on asking people about what they are doing and why or observing the ways they behave and interpreting the meaning of their behavior. Hybrid forms also exist, in which what people say is related to the ways they are observed to behave.

In direct questioning, our answers are only as good as our questions—people are generally uncritical subjects of research and will answer whatever questions we ask, rate whichever items we include,

or give requested opinions, regardless of how salient the issue or how thoughtful their responses. What we don't ask doesn't get answered, what we leave off our lists doesn't get tallied, and we usually don't know what we have missed. When our subjects do go beyond these limitations—for example, via comments written in the margins of a questionnaire—the information generally gets lost during data processing. Furthermore, college attendance and selection are viewed by many as very important, highly symbolic, and emotionally vested phenomena; what people do or say can fall into very ritualized behavior or socially acceptable answers. Thus, their answers may not accurately reflect all that goes on in their minds and lives.

Direct observation involves its own limitations, including the expense of gathering information in this way and the difficulty of observing the subjective phenomena that are integral to a process such as college choice. Thus, directly observed data are relatively rare and, like direct questions, are subject to the definitions and interpretations imposed by the researchers. Furthermore, in some cases, what people say does not conform in any obviously consistent way to what they do; examples of such discrepancies are discussed below.

Finally, the world of college recruiting and admission has changed substantially over the past two decades, and continues to evolve—demographics, economics, and institutional competition have influenced both the concerns and the activities of colleges; technology has altered the ways in which business is conducted; and the media have engendered a new set of sensibilities both for the public and within academia. It is impossible to know the extent to which data obtained from even a decade ago would compare with similar data collected today, or tomorrow. We do have some gross indications that students' college-choice behavior is indeed changing. Unfortunately, some of the more interesting studies that examine in-depth how and why college-selection behavior occurs are over a decade old and should be considered with due caution.

Although research produces some generalized insights into college choice and some quantitative data, it fails to give us a real sense of people engaged in a process that is fraught with hopes and fears, joys and disappointments, conflicting pressures, progress and retreat, and ambiguities. The anecdotal and case study approach afforded by fictional and media accounts breathes with more life and captures more of these subtle, but essential, aspects of college choice. How-

TABLE 1. Principal Research Discussed in the Text

Brief Title	*Subjects*	*Date*	*Point in Process*	*References*
Adult Consumers Survey	1,000 adults, national sample	1989 (July–Aug.)	—	NAICU (1989)
American Freshman Surveys	College freshmen, national sample	1977; 1987	Postmatriculation	Astin et al. (1986); Astin et al. (1990a)
Carleton College Price Studies	Nonapplying inquirers; freshmen at Carleton	1983; 1984	Postadmission, post-matriculation	Brodigan and Sullivan (1985); Brodigan (1987)
Four-Cities Study	474 high-ability high school seniors and 450 of their parents in Atlanta, Cleveland, Denver, and Seattle	1986	Mid-senior year	COFHE (1987a); COFHE (1987b); Litten (1986); Merrill and Litten (1987); Litten and Hall (1989)
Penn State Study	100 Penn State students and Pennsylvania high school students	Not stated	Various	Gilmour, Spiro, and Dolich (1978)
Pittsburgh Study	144 high school seniors in Pittsburgh	1972-73	Every two weeks, Oct.–spring	Lewis and Morrison (1975)
San Jose Family Study	Mothers, fathers, and high school juniors in 161 families in San Jose	1977	Spring	Wright and Kriewall (1979)
1984–85 Transition Study	1,187 high school seniors, national sample; unstated number of parents; observations on 29 campuses; 232 high school counselors	1984-85	Not stated	Boyer (1987)

Six-Cities Study	1,456 high-ability students and 938 of their parents in Baltimore/D.C, Minneapolis/St. Paul, Denver/Boulder, Chicago, Dallas/Ft. Worth, and San Francisco/Oakland	Parents, 1978 (Oct.); students, 1979 (Feb.)	Mid-senior year	Litten, Sullivan, and Brodigan (1983)
Southern University Family Study	47 families of students in a "major southern university"	Not stated	Parents' weekend	Motes (1988)
Twin-Cities Family Study	Families of 250 seniors in 10 high schools in Minneapolis/St. Paul	1979	Early and late in senior year	Hendricks (1981)
1972 Seniors Study	22,652 high school seniors, national sample	1972	High school senior year	National Opinion Research Center (1980)
1980 Sophomores and Seniors Study	30,030 sophomores, 28,240 seniors, national sample	1980	High school sophomore and senior year	National Opinion Research Center (1980) Manski and Wise (1983); James et al. (1989)
1984 Seniors Study	1,549 high-ability high school seniors, national sample	1984 (March; May–June)	Pre- and post-admission	Chapman and Jackson (1987)
1976 Parents Study	2,545 parents of high-ability high school seniors, national sample	1976	Late senior year	Spies (1978)
1987 Parents Study	3,567 parents of high-ability high school seniors, national sample	1987	Late senior year	Spies (1990); Schapiro, O'Malley, and Litten (1990)

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ever, these accounts have their own limitations; in addition to being passed through the filtered vision of the observer/reporter/raconteur, these accounts often focus intentionally on extreme cases in order to capture and hold our attention. We have no way of knowing how widespread the reported behavior is; nor, especially in fictional accounts, how much is based on the behavior of contemporary students and how much on either the outdated experiences or the imagination of the author.

Principal Research Used

Table 1 lists the research that is frequently cited in this monograph. Each entry includes both a brief descriptive name that is used in the text and the reference in which the study appears. Because research that is specifically focused on high-ability students is scarce, most of the areas analyzed begin with a brief review of the evidence regarding college choice in the general student population; these discussions draw heavily on Hossler, Braxton, and Coopersmith (1989), adding some findings from research they did not cover. These general discussions are followed by sections that focus on the principal concern of this monograph—high-ability students—when data on the topic are available.

2

The College-Choice Process

The point at which a student starts down the path to college appears to be one of the more variable aspects of the college-choice process. Anecdotal evidence suggests that in some families children are considered to be college-students-in-training from nursery school on (Berger 1990). Other students awaken to the possibility of attending college only as high school farewells loom on the horizon. Data from systematic research on the timing and pace of the process are limited.

Most students who aspire to a college education appear to develop these plans relatively early. The 1980 Sophomores and Seniors Study found that about 40 percent of the nation's high school sophomores reported that they had expected to go to college when they were in the sixth grade; that percentage increased each succeeding year; about 60 percent said that they had such expectations when they were in the ninth grade. About one-half of the seniors who were surveyed said they had expected to go to college when they were in

the ninth grade; as seniors, this percentage had edged up to slightly over 60 percent.

Timing of the Process

Little detail on the timing of college search and choice by high-ability students has been reported separately. Although they did not differ in the timing of the development of lists of colleges that they considered, the high-ability students, defined as those with Scholastic Aptitude Test (SAT) scores greater than 1100, in the Penn State Study were reported to move more quickly into the application stage of the process than did their lower-scoring peers. In the Six-Cities Study, differences in the timing of applications were observed across the cities. Some of these differences appear, however, to be due largely to the admission practices of the dominant institutions in a given state.

One-half of the high school seniors in the San Francisco/Oakland area reported that they had applied to their first-choice college in November; in the Minneapolis/St. Paul area, on the other hand, January was the month when application to a first-choice college was most likely to occur, although the event was quite evenly distributed across the months of November through February. If an advanced timetable simply means that the self-examination and college investigation process is moved ahead in time, these regional differences are not likely to have much effect on the quality of the college-selection process. However, if search and examination activity is constrained or curtailed in the areas where the process occurs earlier, these differences could produce rather different outcomes for the process, due to a less thorough consideration of options, less extensive self-knowledge regarding interests and preferences, or both.

The Consideration of Colleges

Many students think about and investigate larger sets of institutions than those to which they eventually apply. How far are the horizons to which they push their searches? There is little evidence of just how extensive or diverse these sets of institutional candidates for applications are (and the definition of "consideration" given to a

college is slippery at best). Hossler, Braxton, and Coopersmith (1989) observe that "the search stage [of the college choice process] has received little attention" (p. 66). They report data from some studies in the 1970s on the number of colleges considered by students.

The 1984-85 Transition Study reported that once a student's name is "picked" in the College Board's Student Search Service, which provides recruitment information, he or she will hear from an average of about 20 institutions. How many of these institutions are actually given consideration by the students before the materials are discarded was not reported.

In the 1986 Four-Cities Study, the high-ability seniors listed slightly fewer than three institutions on average that they seriously considered but to which they did not apply; the lists of applications submitted by these students averaged just under four, creating total "consideration sets" of approximately seven institutions.

Applications

The number of applications submitted by students who enroll in selective colleges has risen over the past two decades. The annual American Freshman Surveys show that in 1980, the average number of applications submitted by students who were enrolled in highly selective, nonsectarian, private colleges was slightly more than 3.5, and 32 percent submitted at least 5 applications. By 1990, the average number of applications was more than four per student, and 46 percent submitted at least five applications. (More than 60 percent of the students in *very* highly selective private colleges submitted at least five applications.) These figures slightly underestimate the number of applications, because the top category is "seven or more," but the figure of seven was used in calculating these averages. The high-ability students in the 1984 Seniors Study reported an average of 3.6 applications.

Data from the 1987 Parents Study showed that the students submitted an average of almost four applications. The higher a students SAT scores, the greater the number of applications was likely to be.[1]

1. When findings from this study are reported as "data from the 1987 Parents Study," the analysis has been produced by the author of this monograph from data provided by Richard Spies; these findings will not be found in Spies (1990).

Diversity of Institutions

A substantial, albeit declining, number of students submit applications to only one institution. The American Freshman Surveys show that among students enrolled in all four-year colleges and universities, the single-application submitters have dropped from about 32 percent to 25 percent in the past decade. They consist of at least two groups of students: those who lock on to a single institution without much search (for example, they follow family traditions, attend a local institution that exhausts their ready familiarity with colleges, or are courted early and seduced by a single college); and those who opt for an early-decision application following a full (or reasonably full) search process that moves on a faster track than do other students' searches.

We know virtually nothing about the relative size of these two groups, or the categories within the first group. Nor have I found any documentation of the characteristics of the students, their families, or other socioeconomic phenomena that make a student likely to apply to only one college for any of the reasons noted above. To assess the effectiveness and efficiency of the current admission system in the United States and the behavior it evokes, we need to know more about the outcomes of the college-selection processes of these students, compared with those of students who submit multiple applications: Have they considered as many different options as multiple-application submitters? Are they as satisfied after they enroll? Do they develop and learn as much during college? Certainly the costs incurred by the single-application submitters are likely to be lower than those of students who file multiple applications. This suggests greater efficiency, but only if equally effective choices result.

The San Jose Family Study was one of the few to examine the composition of application sets. The researchers identified two distinctive types of institutions that create diversity: fall-back institutions (where admission is virtually "certain," defined in the study as a college with average combined SAT scores 125 points below the next lowest institution in a student's application set); and windfall institutions (high-cost colleges, defined in the study as having tuition $1,500 higher than that of the second most expensive school in a student's set, but offering the applicant a chance of "windfall financial aid"). The researchers reported that slightly more than one-third of

the students had fall-backs among their applications and about one-quarter reported windfall applications; however, how many students eventually enrolled in these two types of institutions was not reported. If "reaching" for an institution in a higher category than most others to which a student is applying is an important criterion for a successful college search, only about one-quarter had achieved this goal as defined by financial cost. No "reach" in academic terms, however, was explored in this study.

The Consortium on Financing Higher Education (COFHE) is a group of 32 highly selective, private, high-tuition colleges and universities. COFHE exists to provide financial aid and admission research and consulting on behalf of its members. COFHE's own research has contributed some of what is known about selective college admission and the college-choice behavior of high-ability students. The members of COFHE are sometimes used by other researchers to define a set of the most prestigious or selective institutions in the country for research purposes.

The institutions in COFHE admit up to one-fifth of their classes via early decision (or some variation thereof), but the number of such applicants appears to be decreasing slightly. At many, but not all, of these institutions, an early applicant is obligated to refrain from submitting additional applications if an offer of admission is received. Thus, early-application programs tend to produce single-application submitters, although the sets of colleges these students consider prior to application may be fairly extensive. American Freshman Survey data indicate that single-application submitters constitute approximately 15 percent of the entering classes in selective colleges, public and private, and 10 percent or less in selective universities. The 1984 Seniors Study of high-ability students found that one-fifth of the students had submitted only one application. The single-application group in this study tended to have lower SAT scores than did their multiple-application peers, come from lower-income families, have lower levels of educational aspiration, and be more likely to apply to public institutions with rolling admission. This suggests that they may also have engaged in less search activity, although the data are not conclusive.

A few high-ability students appear to be oriented primarily toward selective institutions; many do not apply to any such colleges; and some consider a diverse set that includes some selective institutions.

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In the 1984 Seniors Study, about one-half of the students who submitted two or more applications reported no COFHE institutions in their application sets, whereas one-third reported two or more COFHE applications. The Four-Cities Study also examined applications to COFHE institutions, as well as to private institutions in general. More than 50 percent applied to at least one COFHE institution, and 5 percent applied only to COFHE institutions. (Some submitted only one application.) About 80 percent applied to at least one private institution, and more than 25 percent applied exclusively to private institutions. The percentage of both private institutions and COFHE institutions increased as students' SAT scores increased (as did the percentage of out-of-state applications). Although the four cities in the study were widely separated geographically, and the COFHE institutions are concentrated in the Northeast, the average percentage of applications to COFHE institutions in all four areas was very similar (averaging about 30 percent of the applications submitted). The average percentage of applications to private institutions, on the other hand, ranged from 55 percent to 70 percent across the four cities. In these data, the highly prestigious COFHE institutions appear to be similarly visible and attractive throughout the nation. Unpublished COFHE data from 1980 estimated, however, that the collective market shares of its member institutions, defined as the percentage of students with SAT verbal scores over 600 who apply to at least one COFHE institution, ranged from 1 percent to 51 percent across the 50 states.

Applications cost time, effort, and money. It appears that increasing amounts of these resources are being expended in the search for the "right" institution. Lamson suggests that high-ability students who are interested in more selective colleges will put more effort into their search because of both the nature of the relatively intangible outcomes that they seek from colleges, which cannot be discerned easily, and the propensity of such students to apply to schools that are distant from their homes, which diminishes the ready availability of alumni who would provide this type of information. A relatively high level of search activity, however, could also result from the higher probability of rejection by any one of the preferred, highly selective colleges than would be the case for applicants to less selective colleges. It could also be due to the intrinsic intellectual rewards of the investigation and evaluation that the search involves. High levels of search and application activity could be due in part to each factor.

Admission Offers

The purpose of an application is generally to gain admission to a college, although some students may file an application merely to satisfy someone who is important to them, with the hope that admission will *not* follow. American Freshman Survey data for the highly selective private colleges show that in 1989 matriculants at these institutions received an average of about 3.6 offers of admission; in other words, about 85 percent of the applications submitted by this group resulted in offers of admission. (In *very* highly selective private colleges, freshmen received an average of 4.2 offers of admission for 4.9 applications.)[2] In the 1984 Seniors Study, the average number of admission offers received by students who submitted at least two applications was 3.4.

Data from the 1987 Parents Study show that students received offers of admission from an average of 2.9 institutions, representing an average positive response to 82 percent of the applications submitted. The higher a student's SAT scores, the greater the number of admission offers. However, the admission offers that students received declined as a percentage of applications submitted as SAT scores increased. This indicates that as SAT scores increase, students tend to make more applications overall and are more likely to apply to more selective institutions. The associated pattern of declining admission percentages certainly has an effect on how students behave during the college-choice process and the amounts of resources they expend.

Enrollment Decisions

After the dust from the submission of applications and the receipt of offers of admission clears, a student eventually enrolls in a single institution. Although the number of applications submitted by students has increased recently, students still appear likely to enroll in their first-choice institutions. In 1980, 72 percent of the students in highly selective, nonsectarian, private colleges reported in the Amer-

2. The 1990 American Freshman Survey did not ask for number of admissions; therefore, 1989 data have been used here.

ican Freshman Survey that they were enrolled in their first-choice institutions. In 1990, that figure was 71 percent. (In highly selective public institutions, however, there was a drop of five percentage points during this period.) The 1984 Seniors Study of high-ability students reports a comparable figure—70 percent enrolled in their first-choice institutions.

In most data of this sort, it is not clear whether students' reports of first-choice institutions take account of all the institutions that a student might have preferred, or exclude those to which applications were not submitted because the institutions were believed to be unaffordable or unlikely to admit the student. According to the 1984-85 Transition Study, many students refrain from applying to their first-choice institutions due to their admission test scores, which they believe to be too low to get them accepted. Undoubtedly, the frame of reference that respondents adopt in a survey depends on how and when the questions are asked, information the researchers in the 1984-85 Transition Study do not supply.

Selective Institutions

Who applies to selective colleges and universities? This question can be approached in two ways: Do students from different backgrounds or with different personal characteristics apply to selective colleges at different rates? Does a substantial percentage of high-ability students apply to the most selective institutions, regardless of the students' social or economic status?

Hossler, Braxton, and Coopersmith (1989) reviewed the influences of personal characteristics and situations on the types of institutions to which students apply. They summarize their findings as follows:

1. Socioeconomic status—Mixed findings; generally, high socioeconomic status leads to more applications to and enrollment in selective colleges.

2. Ability—Likelihood of applying to out-of-state or selective colleges increases with ability.

3. Race/ethnicity—Blacks are less likely than whites to apply to selective colleges (one study).

4. Residence—Inconclusive.

5. Parental encouragement—Increases rates of application to selective colleges.

6. Peers—No reported effects.

7. High school quality—Higher quality leads to more applications to selective colleges (one study).

Most studies have discovered that a student's academic abilities have a greater correlation with application to selective institutions than do other characteristics such as family income, race, or gender; the higher a student's test scores or the stronger his or her high school performance, the greater the likelihood that student will apply to a selective institution. Students do not necessarily opt to enroll in the most selective institution they are accepted by; the 1972 Seniors Survey shows that they sort themselves into colleges where average ability levels are similar to their own (Manski and Wise, 1983).

Several studies of high-ability students have examined the propensity of these students to apply to selective colleges, and the personal characteristics and situations that encourage such applications. Data from the 1976 Parents Study show that 29 percent of the students had applied to COFHE institutions. In the 1987 Parents Study data, applicants to this set of institutions represented 46 percent of the sample.[3] In the Six-Cities Study, 40 percent of the students listed at least one institution in a group of 71 very selective institutions among their top four choices,[4] and 13 percent listed such institutions exclusively.

SAT scores were found to be a very powerful predictor of application to highly selective, high-priced institutions in both the 1976 and 1987 Parents Studies and the Four-Cities Study. The incidence of applications to such institutions rose sharply as students' SAT scores

3. These percentages are based on six reported applications for students with combined SAT scores of 1000 or higher. The differences in the application rates reported by these two methodologically similar studies could be due to differences in the response rates to the surveys—35 percent in 1976 and 46 percent in 1987.

4. It is unclear whether the researchers coded only four of the five institutions for which spaces were provided on the questionnaire, but the percentage categories listed make this appear probable.

increased.[5] Several other characteristics increased the likelihood of applying to one of these institutions, independent of the effects of SAT scores and other characteristics. The number of applications to these elite institutions increased with family income, although the correlation was less than with academic ability. In all three studies, applications to these institutions were more likely from students whose parents had high levels of education, students in private secondary schools, and students from Jewish families, with the effects of each characteristic independent of the others. A strong regional effect was noted in the two Parents Studies; New Englanders were substantially more likely to apply to the selective, private institutions that constituted the reference group than were students from elsewhere in the nation. However, a preponderance of the institutions included in the study's reference group of selective institutions are in the Northeast. Other factors being equal, blacks and Asians in the 1987 Parents Study were more likely to apply to the highly selective, high-priced institutions than were non-Hispanic whites.

The Six-Cities Study had an even more restrictive definition of "selective"; it examined the characteristics of students who indicated a preference for a selective institution that was also a private, liberal arts, nondenominational, rural, small college with a studious atmosphere. Students were most likely to exhibit a preference for such an institution if (in decreasing order of significance) they had parents with high levels of education, resided in either Denver/Boulder or Minneapolis/St. Paul, or had fathers who were employed in academia. Ability had a small positive effect, race (being white) had a modest effect (the sample was quite thin on racial diversity), and family income was not measured.

5. SAT scores were the most important predictor in the two Parents Studies and second in importance after parental education in the Four-Cities Study.

3

How Colleges Are Chosen

This chapter examines both the institutional characteristics that cause students to select some colleges and ignore or reject others, and the individuals who make or influence the choices. The effects of institutional characteristics and of influential persons are often confused in the research literature, or at least lumped indiscriminately together. They are distinctly different types of effects, however, with decidedly different implications for policy and practice in admission. The criteria employed to select, reject, or ignore certain types of colleges or specific institutions are likely to differ as students, and other parties to the process, move from deciding to investigate colleges to the final matriculation decision. Most studies fail, however, to make distinctions regarding different points in the search and selection process.

Students enroll in institutions with markedly different characteristics—big or small, liberal arts or technical, serious or party oriented, distant or local, religious or secular. This persistent institutional diversity testifies to the complex reasons that underlie college choice, and is evidence that different people are looking for different things in a college, or at least that what they know about colleges differs.

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Each institution also enrolls a varied group. Students either complete the college-selection process with different knowledge about a given college, or they select subcultures and subunits within an institution more than an institution as a whole . . . or both of the above.

Basis for Choices

Fictional portrayals of students in the throes of selecting a college generally do not focus on reasons for choosing one college over another, except when such reasons figure in intergenerational conflicts over preferred institutions. The media have made some forays into this territory, but social research is our primary source of information about how and why students choose particular colleges or types of college.

This research takes several forms: students and their parents have been asked directly what is important to them when selecting a college; their assessments of the relative attractiveness of specific colleges and those institution's characteristics have been examined; and their ratings of the institutions where they enroll and those they turn down have been compared.

Researchers on college choice are looking for reasons that students choose colleges, and, given the structures of their questionnaires and interviews, they always find them. Some students, however, do not have clear reasons for their choices:

> The strongest reason I had for choosing my college was neither intellectual curiosity nor professional ambition—it was the need for social approval. As one equally confused—but honest—high school friend said, "Doing four years of college is more respectable than doing four years of prison." Yes, going to Penn State does look better than going to the state pen—but at least the convicts know why they're going.
>
> I finally chose Drexel University for its nationally ranked engineering school. Now, as a college senior, I'm in Drexel's small but growing communications department. It isn't because I couldn't "hack" engineering; I realize now I never wanted to hack engineering in the first place. (Kowal 1985 p. iv)

Hossler, Braxton, and Coopersmith (1989) focus their discussion of the early stage of the search and selection process on the social, economic, and demographic conditions that increase the probabilities that a student will attend college. It is also instructive to look at the

reasons that students (and their parents) give for college attendance. The extent to which these reasons differ across students who enroll in different types of colleges or across specific institutions provides some clues regarding the basis for college choice.

Reasons for Going to College

In the 1984-85 Transition Study, six reasons for attending college (in descending order of incidence) were chosen as "very important" by at least four-fifths of the students: "to have a more satisfying career," "to prepare for a specific occupation," "to get a better job," "to develop talents and abilities to the fullest," "to learn more about things of interest," and "to gain a well-rounded education." Three reasons were given by one-third to two-thirds of the students—a range in which we might expect to find differences among students who choose different types of institutions: "to become an authority in a specialized field," "to become a well-rounded, more interesting person," and "to have an opportunity to clarify values and beliefs." Unfortunately, however, the responses were not reported separately for students at different types of institutions.

The American Freshman Survey shows that, in 1990, a majority of the students in highly selective four-year colleges gave the following reasons for going to college: "to learn more about things," "to get a better job," "to gain a general education," "to make more money," and "to prepare for graduate/professional school."[1] Students in highly selective public institutions are slightly less likely than those in private institutions to cite a desire for a general education. These reasons have not changed very much over the past decade. For example, in private, high-selectivity, nonsectarian colleges, only 3 of the 11 reasons listed showed even modest differences over this period: general education declined (from 75 to 70 percent), whereas becoming a more cultured person (from 45 to 50 percent) and getting away from home (from 10 to 16 percent) increased.

1. The norm reports from this survey have data by type of institution, control, and institutional selectivity; for universities, these data are further differentiated by student gender, but without tables for all students. For this reason, I have concentrated on the data for four-year colleges except when examining gender differences.

Students in selective institutions report somewhat different reasons for going to college than their peers in less selective institutions. In 1990, freshmen in very highly selective, private, nonsectarian, four-year colleges were more likely than students who chose relatively unselective colleges with these characteristics to give "gaining a general education" and "becoming a more cultured person" as reasons for college attendance and less likely to cite "getting a better job," "making more money," or "parents desired it." Differences across universities with different selectivity levels and across selectivity levels in other types of colleges were not as pronounced. (The number of selectivity levels reported for private, nonsectarian colleges is also greater than for the other types of institutions—five versus four for colleges and three for universities.)

Some striking differences between genders appear, however, in the reasons reported by students in different types of highly selective universities. Women in private universities are more likely than men in public universities to cite "gaining a general education" and "becoming a more cultured person"; the relative positions of the two groups are reversed on "making more money." Men at highly selective private universities and women at similar public institutions fall between these two extremes.

Student Reports of What Is Important

Hossler, Braxton, and Coopersmith (1989, p. 271) identified the following characteristics of institutions that students rate "most important when they decide to apply to or attend a [postsecondary institution]"; they are listed in descending order of importance, although "the precise order . . . varies from study to study":

1. special academic programs (major area of study);
2. tuition costs;
3. financial aid availability;
4. general academic reputation/general quality;
5. location (distance from home);
6. size; and
7. social atmosphere.

In the annual American Freshman Surveys "a good academic reputation" is the reason given most frequently by freshmen in selec-

tive colleges for having chosen the institution in which they enrolled; in 1990, 70 to 90 percent of the students in the several types of highly selective institutions checked this as a reason from among the 14 listed on the questionnaire. The percentages choosing this reason tended to be slightly higher among freshmen in universities than among those in four-year colleges, but it was the most frequently selected reason across all categories of selective institutions. (Note, however, that even in relatively unselective institutions, "a good academic reputation" was the reason marked most frequently by students, except in some types of four-year colleges, where size was more likely to be marked as a reason.) Second in frequency of responses among students enrolled in selective four-year colleges was "graduates get good jobs" (about 50 percent), followed by "size of the college" in private selective colleges.

Academic reputation and graduate school admission rates were the only reasons that varied substantially across selectivity levels for university students and for those in private nonsectarian or Catholic colleges; the more selective the institution, the larger the percentage of students who chose these reasons. In public, relatively unselective colleges, 40 percent of the students chose this reason, compared to 78 percent in very highly selective private colleges. In public and religiously affiliated four-year colleges, greater selectivity was also associated with more frequently citing "graduates get better jobs" as a basis for choosing a college.

Leslie and Brinkman (1988) conducted an extensive review of the substantial literature on the financial costs and economic returns of college attendance. In a statistically sophisticated and highly technical discussion of 34 studies of the effects of costs on college choice among a wide spectrum of students, they conclude that the relative price of other colleges will make little difference for students who want very much to attend a particular college. However, "on other occasions, perhaps when personal preferences are not strong, relative prices become more critical and the best aid offer is likely to influence the attendance decision" (p. 171).

From a series of 12 group interviews with students and parents, Hayes (1989) identified two distinct parts to the college-choice process. In the first phase, students made a "first cut" using "logical, quantifiable measures": reputation, physical size, curriculum, location, and cost. "Reputation" was defined by the students through schoolmates who had attended a given institution. (Colleges that attracted

intelligent, hard-working peers were seen as "good" colleges.) The second stage of choosing a college "was based on an 'emotional, gut reaction' to the campus visit." Visiting a particular college was often induced by the positive emotional reactions of peers who had already visited. During these visits, the students sought to determine "how well they 'fit' in" to the college; they were looking specifically for "enthusiasm, friendliness, and personal attention [from] admissions officers, faculty, and the college's own students" (p. 23).

As discussed earlier, there is a strong statistical association between students' admission test scores and the probability that they will apply to selective colleges. The 1984-85 Transition Study reports that test scores have a major impact on college choice: "Nearly two-thirds of these students concluded that their choice of a college would be restricted because of their scores. They would not select their first-choice institution" (Boyer 1987, p. 35).

A longitudinal study (related to me in correspondence from Don Hossler) of high school students in Indiana that is still in progress found that initial certainty regarding the important characteristics of colleges is reduced for all types of students when they enter the eleventh grade. Increased uncertainty is especially marked among high-ability students, however, and they do not recover their certainty in the twelfth grade to the same extent that their lower-performing peers do.

Observation and Interviews

Participant observation can enable researchers to move beyond some of the limitations imposed by survey techniques. Two recent studies (Moffatt 1991 and Cottle 1991) should create an important new tributary to the flow of research on college choice. Moffatt reports on a decade of participant observation among students at Rutgers University. His descriptions of undergraduates—their activities and their values—provide some powerful clues regarding the basis for college choice. He comments on the prevailing plurality of concerns that drive many students' lives:

> The students agree that classroom learning is an important part of their college educations. College would not be college, after all, without "academics": professors, grades, requirements, and a bachelor's degree after four years. Most students also agree that college

> should be a broadening experience, that it should make you into a better, more open, more liberal, more knowledgeable person.
>
> But, in the students' view, not all this broadening happens through the formal curriculum. College is also about what goes on outside the classroom, among the students with no adults around. College is about being on your own, about autonomy, about freedom from the authority of adults, however benign their intentions. And last, but far from least, college is about fun, about unique forms of peer-group fun before, in student conceptions, the grayer actualities of adult life in the real world begin to close in on you. (p. 46)

He notes that students believe:

> Academic work and friendly fun ought to be equally important activities during one's undergraduate years. . . . Incoming freshmen usually have two goals for their first year in college, "to do well in classes" and "to have fun". . . . You come to college for the challenge, for the work, and to do your best in classes in order to qualify for a good career later in life—and possibly to make yourself into a broader, more liberally educated person. College life is the play that makes the work possible and that makes college personally memorable. (p. 48)

The activities of the students Moffatt observed give testimony to their success in achieving these goals; students spend twice as much time on recreation as they do on course assignments and their overall academic endeavors (class time plus assignments) involve only about 1.5 times the number of hours given over to leisure pursuits. The proportional allocation of time might well be different at a more selective institution, but both dimensions of student life exist regardless of admission selectivity. To date, the questionnaires used for college-choice research have failed to explore the social and sexual aspects of students' concerns in sufficient breadth or depth.

Parents versus Students

The 1984-85 Transition Study reports that the priorities of parents differed from those of students, but the data show that the six reasons cited most frequently were selected by similar percentages in both generations. Only 3 of the 14 reasons listed showed a generational difference of at least 10 percentage points: parents were more likely than students to desire "value-clarification" and "rounding," whereas students were more likely to desire to become "an authority" in a given field.

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A study of high school seniors, parents, and counselors in the markets of Washington State University found that students and parents had very similar perspectives on what is important when choosing a college: they focused on preparation for employment and upward economic mobility (Sanders 1990). (Although the Sanders article describes "expectations," the questionnaire actually asked what was "important." Sanders told me in a telephone conversation that subsequent research in the markets of Vanderbilt University revealed similar patterns of "important considerations" among students and parents.) Counselors, perhaps because of what they discuss with students and parents or because of greater objectivity regarding what really influences students, emphasized financial aid and the opinions of students' friends.

Students and parents were found to rate similar attributes as important in college selection in the Six-Cities Study. Fields of study offered, career outcomes, faculty teaching reputation, and net price (total price minus aid) were rated "very important" by a majority in both generations. Among these characteristics, faculty teaching reputation was more likely to be important to parents than to students. Among the less widely endorsed characteristics, parents were more likely than students to rate graduate/professional school acceptance rates very important (a majority of parents rated it important), whereas students were more likely to consider social atmosphere and campus appearance as very important. Similar generational differences were observed in the more heterogeneous sample of the Twin-Cities Family Study. (The latter sample, however, was not asked to rate graduate/professional school acceptance rates.)

Cottle (1991) conducted extensive ethnographic research with working-class families. He describes 10 minutes in the lives of the Leland family, who are in the stage of college selection that the father calls the "enticing stage"—the period when colleges recruit students. Cottle's poignant description lays bare the "special strains" that erupted in many of the families he observed as the senior year commenced, and reveals the variety of concerns that drive each member's participation in the process. The father wants a prestigious college because he believes

> These schools are not the same. . . . You want her happy in an important school that can affect her life or in a nothing place that leaves no impression on her? You tell people you went to one school, and they'll listen to you. Tell 'em another school, and it doesn't even matter you went to college. . . . I didn't invent status,

> prestige, opportunity. But they are real, and they're out there, and a good parent sees to it that his children get the best shot at them. (pp. 82-83)

Cottle notes that "often . . . it is the father who seemingly rests his entire sense of worth on the acceptance or rejection, or even more acutely, assesses his position on the basis of the schools to which the children apply" (p. 80). During the 10 minutes recounted, Mrs. Leland directly accuses her husband of wanting a prestigious college to enhance his own status and claims she simply wants her daughter to find a school where she "fits" and will be happy. The daughter has internalized the conflicts that embroil her parents, and in Cottle's account, she temporarily resolves them by "total inactivity" (a "life-sustaining action" in Cottle's opinion, in view of the turmoil that college selection is visiting on the family).

Ratings of Colleges' Characteristics

Most of the survey research cited to this point asked students and parents what was "important" in college choice. Comparing the ratings of different institutions on specific dimensions affords a different, albeit overlapping, perspective on what drives college choice. Early Carleton College market research found that a comparative perspective—that is, the difference in students' ratings of Carleton and other colleges—was much more powerful in predicting whether a student would enroll than simply examining how students rated Carleton (Litten 1979; Litten, Sullivan, and Brodigan 1983). Not surprisingly, the statistical evidence indicates that students make their college choices from a set of institutions they compare, not just by examining an individual institution or institutions in isolation. The empirical research on college choice often fails to include this comparative framework.

Other research has used some type of student ratings of several institutions, or measures of the actual characteristics of different institutions, as the basis for predicting or explaining college choice. The 1984 Seniors Study specifically sought to determine whether financial aid influenced students in their choices of colleges. The method employed was to see whether the financial aid offered by institutions induced students to enroll in institutions that had been rated as less attractive than the institutions that the students identified as their first choices prior to their receipt of any notifications of admission. The data showed that net prices had a small effect, but

that "prior preference" was the overriding determinant of enrollment, even when varying financial aid practices differentially altered the net prices of the institutions that admitted the students. Not surprisingly, students from low-income families were more sensitive to cost considerations than were their peers from families with more resources. The relative importance of cost considerations did not differ for men and women, for students with different ability levels, or for students who had different levels of educational aspiration or expected majors.

The researchers also observed an "SAT-fit" phenomenon, as has been observed in more heterogeneous populations: students were most likely to prefer institutions that reported average SAT scores similar to the student's own, not necessarily the college with the highest average scores among the institutions to which they had been admitted.

What influenced the "prior preferences" of these highly able students—that is, their preference rankings of institutions prior to admission? Perceived academic quality counted for more than anything else. The researchers examined the effects of four sets of characteristics, all based on indexes they created from students' ratings of the institutions that admitted them:

Area	*Specific Ratings*
Academic quality	Facilities; reputation; special programs; preparation for career; graduate and professional school opportunities; academic strength of major.
Personalness	Personal contacts; undergraduate emphasis.
Life-style	Variety of courses; social climate; extracurricular opportunities.
Location	Geographical location; community setting.

The researchers excluded cost considerations from the set of characteristics against which they assessed "prior preference," although evidence from most research suggests that this is a major consideration.[2]

2. The researchers indicate that they measured "things students value in a college except situational constraints." They label cost considerations "situational constraints." The exclusion of cost considerations from prior preference did allow a test of the net effect of costs after accounting for the effects of prior preference, but it is plausible that both published cost data and expectations regarding eventual financial aid awards do figure in the formation of preferences for institutions early in the college-choice process.

All four sets of characteristics were judged to be important in determining the attractiveness of a college, but the effect of academic quality was twice that of any of the other three sets, all of which were about equal in impact. The relative importance of these four sets of characteristics was examined for various groups—men and women, SAT scores, parental income, educational aspirations, and expected majors. The only differences occurred across majors; life-style considerations were less important for prospective science and engineering majors than for other students. This could be due either to lesser importance assigned to the life-style characteristics of colleges by science and engineering majors or to lesser variation in these characteristics among the institutions to which such students were admitted, or both of these reasons; the report of the research does not reveal the specific cause of the differences in statistical relationships. The data also showed that certain specific institutions had an attractiveness beyond anything attributable to the institutional characteristics that were measured in the study.

Costs and Benefits. From another perspective, that of costs and benefits, we have evidence that both the costs and the benefits associated with specific colleges are taken into account by high-ability students and their parents during the college-choice process. The Four-Cities Study, conducted during the winter of the participating students' senior years (prior to most notifications of admission), asked students and parents to identify the benefits and costs that were most important to them when choosing the colleges to which the students had applied, and to rate both the levels of costs and benefits associated with specific institutions and the attractiveness of the same institutions to them. Each individual was asked to name, and then rate, four institutions: their first choice, a COFHE university, a COFHE college, and the best local institution (one not already named in the previous three). Their ratings of costs and benefits were compared with how they rated the relative attractiveness of these institutions. Participants were also asked to identify the specific characteristics of institutions that can best provide evidence of high quality to a prospective student. (The following data are mostly from Litten, 1986, but some have not previously been reported.)

From the lists of 10 long-term benefits, 10 short-term benefits, and 10 broadly conceived costs (financial and nonfinancial—social, psychological), that were given to the participants, only one benefit—expanded intellectual skills, knowledge, and cultural awareness—was

selected by a majority of both students and parents when they were asked to identify the three most important costs or benefits to consider when selecting a college. This underscores the substantial variance and complexity that underlies college choice. One-fifth to one-third of both generations identified the following benefits as very important to consider when choosing the colleges to which applications would be submitted:

- Having an advantage when seeking employment anywhere in the United States;
- Establishing independence for the student (somewhat more likely to be selected by parents than by students); and
- Learning more about things that interest the student.

Ratings of an institution's attractiveness were compared with how the students rated it on specific characteristics; in this case, benefits and costs of attendance. The results from the two approaches were fairly consistent: perception of an institution's contribution to intellectual development, national employment advantages, and learning about things of interest were strongly associated with attractiveness.[5] In addition, "advantages when seeking admission to graduate and professional schools" was related to attractiveness, although it was not among the three most important benefits selected by very many participants.

A student's expected major was the principal source of differentiation in these ratings, a finding that paralleled that of the 1984 Seniors Study. Future engineers were the most likely to select employment advantages and national prestige as important benefits; natural science majors were distinctively interested in graduate/professional school admission advantages; and lasting friendships were most likely to be of consequence to arts/humanities and natural science

5. The consistency across the two methods of assessing importance—stated importance and attractiveness/characteristics ratings—observed in this study contrasts with the findings from the data obtained from 80 surveys of admitted students, discussed below. In addition to differences in the nature of the measures used in the two studies—ratings of institutional properties versus personal costs and benefits—the timing of the data collection may have had some effect on the differences in the two sets of findings. The Admitted Students Surveys were conducted four to six months later in the admission process than the Four-Cities study, and did not specify any particular temporal reference point for the student's various ratings.

majors. Not surprisingly, an institution's attractiveness was more closely related to its ratings on each of these dimensions for students who said that the specific dimension was important to them than for students who did not. This is an important methodological consideration when studying college choice; saliency should be taken into account in some manner when obtaining ratings of college characteristics.

Colleges' benefits were more important than their costs to these families. The only cost that at least one-quarter of the students and their parents chose as one of the three most important considerations was the "amount of money required from income or savings." When asked to consider only the three most important costs (before the participants were instructed to select most important costs and/or benefits), the social pressures that a student might encounter at a college were identified as something "to be kept to a moderate or low level" by almost one-third of the parents, which is substantially more frequently than the students identified this cost.

Costs as Deterrents

Other research found that costs, both financial and nonfinancial, appear to play a role in deterring some students from applying to selective colleges. The Six-Cities Study found that concern about financial costs discouraged some students from applying to selective colleges. (This *price* sensitivity is different from the low degree of *income* sensitivity affecting application to selective colleges that was identified in research such as the 1976 and 1987 Parents Studies.)

The Four-Cities Study identified a small group of 69 students who named a COFHE institution as most attractive, but had not applied to one. Comparing the COFHE institutions with their first choices, these students indicated that the COFHE institutions provided relatively greater benefits, but had even greater costs than their first choices. The COFHE institutions were rated as providing higher levels than their first-choice institutions of the following benefits:

1. national employment advantages;
2. graduate/professional school admission advantages; and
3. recognition for their graduates throughout the country.

These institutions were rated as entailing substantially higher levels of the following costs:

1. money required from family;
2. loss of contact with family and friends;
3. loan debts upon graduation; and
4. probability of not being admitted.

And somewhat higher levels of:

1. studying required;
2. competition for recognition on campus;
3. social pressures; and
4. adjustments to a new campus culture.

Parents who rated a COFHE institution as more attractive than their own first choice among their child's applications were somewhat less likely than the students to attribute higher levels of either benefits or costs to the former. Parents were noticeably less likely than their children to rate the COFHE institutions as being more competitive or necessitating adjustments to a new culture. (Apparently the parents had more confidence in their children than the children had in themselves.) However, they were more likely to foresee greater social pressures at the COFHE institutions. (Recall that parents were also more likely than students to identify this as a "cost" to be contained.)

A final perspective on costs from the Four-Cities Study reveals that similar students often have different values. Among students whose first choice was a very selective institution, higher perceived costs were associated with greater institutional attractiveness—the higher an institution's financial costs, the greater the amount of studying required for good grades, the greater the competition for recognition on campus, and the higher the probability of being denied admission, the greater the institution's attractiveness. Either these students are willing to accept the fact that the most attractive institutions impose the highest cost, or these costs directly engender prestige and attractiveness, or both. On the other hand, for students whose first choice was less selective, these costs were neither positively nor negatively associated with ratings of attractiveness. Certainly, the "costs" imposed by a given level of academic pressure vary inversely with students' ability levels.

The Four-Cities Study also asked whether participants agreed or disagreed with certain statements. The responses indicate that they ascribe great importance to choosing a college. One-half of the stu-

dents strongly agreed with the statement, "college choice is one of the most important decisions in one's life." (Over one-quarter of the parents indicated strong agreement with this statement.) Two-thirds agreed that "the college you go to strongly affects how good your first job will be," and one-half agreed that "it is important to have a degree from a college that everyone recognizes." (In the latter case, however, one-third disagreed with the statement.) Two-thirds disagreed with the statement, "as long as you do well in college, it doesn't matter where your degree is from." On the other hand, in spite of these indications of a belief that the particular college one chooses matters in the long run, over three-quarters agreed that "anyone can find a satisfactory niche at most colleges."

Finally, the Four-Cities Study sought to link specific characteristics of institutions to the concept of quality by exploring the question: "What does 'high quality' mean to people?" From a list of 22 characteristics that could be considered indicators of quality, the only one that was selected by at least one-third in both generations was "high admission rates of graduates to top graduate or professional schools," which was selected by 7 of 10 parents. Although this was also the top-ranked indicator for students, only 4 in 10 selected it. The other top-ranked indicators for parents, selected by at least one in five participants (and listed in descending order), were: "faculty spend as much time on teaching as on research," "large variety of courses and programs," "advanced laboratory equipment and resources," and "many small classes"; for students, they were: "course/program variety," "advanced laboratories/libraries," "faculty spend time on teaching," "students who were high achievers before college," "many small classes," and "high starting salaries for its graduates." It is interesting to note that "surveys [that] show graduates were satisfied with the college" was among the top three indicators for only 20 percent of the parents and was even less salient to the students.

The responses were compared with participants' ratings of each institution on these quality dimensions and their ratings of the institutions' attractiveness. The strongest quality/attractiveness correlations were for three of the indicators most often selected by the participants—laboratory/library resources, course/program variety, and graduate/professional school admission rates—and two that were not likely to be identified by the participants—"high starting salaries for graduates" and "students who were high achievers before college." There were much more modest statistical relationships for two char-

acteristics identified as top indicators of quality—faculty teaching emphasis and small classes. People who say that these factors are important may not act accordingly when choosing colleges; perhaps "emphasis on teaching" is too elusive to be a basis for making discriminating judgments among colleges.

Behavior versus Self-Reports

What people say about a process that is as socially significant as college selection may not correspond to what they really think. Several researchers have explored the difference between what people say is important to them and their ratings of specific characteristics of the institutions they choose, or between self-reported importance and how their ratings of specific aspects of colleges relate to their overall ratings of the same institutions. Using data from 80 colleges as reported on the College Board's Admitted Student Questionnaire in 1988, Chapman (1989) examined the characteristics that students rated as "important when choosing a college." He then derived an "inferred importance (or preference) weight" for each characteristic by comparing how enrolling and nonenrolling admitted students rated the institution that sent them the questionnaire. He found differences between the top five characteristics identified depending on the method of analysis used. (The characteristics are listed below in decreasing order of direct ratings of importance and statistically derived importance in predicting matriculation.)

Directly Rated	*Statistically Derived*
Faculty quality	Quality of social life
Quality of majors	Cost of attendance
Academic reputation	Academic reputation
Access to faculty	Quality of majors
Variety of courses	Access to faculty

The differences in these two lists are intriguing, especially the place of social life and financial costs. Although these particular data leave us with many unanswered questions about the differences in the two lists, the discrepancies may not be inconsistent; the characteristics in the first column may be very important to students as they develop their application sets, whereas those in the second column may as-

sume more importance when choices are made among offers of admission from colleges that are relatively homogeneous on the first set of criteria.

One of the most intriguing glimpses into the grounds for college choice was reported in the *New York Times* several years ago by a reporter who talked to high school seniors (Dowd 1985b). Many of the considerations cited appear fatuous at first glance, but actually show a subtle sensibility for the nuances of social environments. She cites one student who struck a college from her list because "it flunked the sneaker test. 'Everyone at Amherst had on Nikes,' she said. . . . 'If all the kids at a college are wearing the same expensive, brand-name sneakers, it's a sign that they are too interested in looks and materialistic things. I'm looking for people who are interested in other people.'" Another student found a college attractive because he liked the "bushhead ratio," observing that "Wesleyan had an amazing number of people with hair like mine, and I find that a very nice idea," he said, since his hair was a personal symbol of nonconformity. Yet another student evaluated two colleges on the basis of the width of the halls, noting that the one with narrower halls failed to create "a temptation to stay in the halls and talk."

The overall picture garnered from the research literature regarding the criteria students use for choosing among colleges remains rather murky; academic ability appears to be the personal characteristic that best predicts the selectivity of an institution to which a student applies. Students talk about the importance of specific program availability, faculty characteristics, and costs of attendance, but ratings of social life and costs head the list of institutional characteristics that distinguish the institutions where students enroll from others they considered.

Perspectives from Fiction

Novels that deal with high school seniors tend to focus on very different phenomena relating to college choice. One novel explicitly mentions salient college characteristics. Stephanie (*The Jell-O Syndrome*) chooses Hyde College because it is "not as high pressured as MIT or Stanford and it's much closer to home. . . I'll be able to see my mother quite a bit. I'll be able to see Keith [her boyfriend] too, since he plans to stay in town." The prevalent theme in fiction,

however, is conflict between the desires of parents and those of their children. Some parents want their children to carry on family traditions of attending particular colleges, while their children have interests that would be better served at other institutions. Rob (in Klass's *The Bennington Stitch*) wants to study studio art at a place like SUNY Purchase, but frets because

> scores like mine are perfect for the elite liberal arts undergraduate college—meaning Yale—leading right on to the elite medical school. My father [who ends up refusing to pay for anything but premed at Yale] will point all this out to me—again. "Three generations of Burtons have excelled in science at Yale, Robert."

Amy, in the same novel, has a relentless mother who declared in the delivery room, "This child will be called Amelia Bloomer Hamilton and she will study the arts at Bennington College. Nothing will prevent this!" causing the obstetrician to drop a stitch and the nurse to drop the baby. Amy wants to pursue a career as an artisan and feels no desire to go to college. In a similar conflict, Augie (Klein's *My Life as a Body*) wants to study studio art at Rhode Island School of Design (RISD) but her parents want her to enroll at Harvard or Yale, study art history, and follow them into academia.

George's father (Naylor's *The Year of the Gopher*) wants his son to follow in his footsteps and be a lawyer after graduating from a prestigious Ivy League university. George knows he does not want to be a lawyer or to go to any of the colleges his father has chosen, but he is not certain what he does want to do; therefore, he wants to postpone college. Michael's father (Asher's *Everything Is Not Enough*) is intent on having his son enroll in a business program and inherit the family business; Buddy is more interested in choosing a college where he can study something like psychology. Even Hollywood's comedic treatment of college choice, *How I Got into College*, pits Jessica, who wants to go to a small college, against her father, the super alum from the University of Michigan.

The achievement of social status via a prestigious college—for one's self, for one's family—is a theme that recurs in fiction and is not fully captured by the "general academic reputation" in the questionnaires administered to college applicants. "When I was filling out applications, my counselor and my father had both been full of suggestions. Both of them loved the ring of the big names. It always makes the high school look good to say that they have placed some

of their graduates at MIT or Stanford," muses Stephanie in *The Jell-O Syndrome*. After a friend calls her a snob, Bliss (*Blissful Joy and the SATs*) acknowledges that "she *did* want a prestige school. She *did* want the world to know who she was. College? Ivy League, Vassar. Boy friend? Howard Oaks, Columbia. Those things made her somebody other than Dan and Polly's [her divorced parents] pathetic kid." And Colin, in the same novel, confesses that he had gone to Princeton "because of what it stood for. Going there made my family proud and happy, my school proud and happy, and me proud and happy. . . . To be without an affiliation that gave me status was frightening."

Social Distinctions

Although some fictional characters give testimony to the pursuit of prestige and status as a basis for college choice, others worry about the social distance between their backgrounds and what they will encounter at college. Humorist Garrison Keillor, creator of "Lake Wobegone," tells about the Tollefson boy who, when he shows up for registration at a state college, worries about being seen with his relatives who "look funny," who all talk at the same time and "say dumb things," and whose behavior makes it seem "like they have signs around their necks that say 'hicks'." The stonecutter in the movie *Breaking Away* talks to his son about how he helped build a state university campus, but when the buildings were finished "the damnedest thing happened—it was like they were too good for us; nobody told us that . . . just felt uncomfortable, that's all." His son then reveals that he has done well on an admission test, but admits to being afraid of college and of leaving "the rest of the guys" who are not going on. Certainly, some colleges are more socially threatening than others to some students; such problems are likely to be greater at more selective colleges where there is also a greater incidence of family wealth (Schapiro, O'Malley, and Litten 1990).

Social concerns, real and imagined, that are less grounded in social class loom large for some fictional characters. Stephanie (*The Jell-O Syndrome*) ponders further the "big name" schools that her counselor and her father are advocating: "None of the schools sounded much like me, whoever I was. And they all sounded terribly lonely." A more extreme type of social concern is expressed by Claudia (*My Life as a Body*), who has been admitted to three selective colleges, two in the North and one in the South: "I thought you liked

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Duke" [her friend Augie said]. "Yeah, but it's in the South. . . . I don't know. Can you see me in the South?" "Sure, why not?" "It's probably like Sharon. They probably hang gays from trees as part of their spring festival." Claudia chooses Wesleyan, where she becomes close to a lesbian teacher who admits to having also avoided the South due to the same fears.

Research versus Fiction

Research provides a broad set of insights into the rational aspects of decision making that result in the choice of a college by students and the relative influence of particular considerations on decisions. Fictional accounts expose the profound emotional and social forces that affect these decisions, as they do so many other aspects of any person's life. Fiction often uses college choice as the medium through which the sometimes wrenching process of disengagement-by-students/letting-go-by-parents is portrayed. Research tends to produce a fairly sterile and shallow picture of the process; fiction pays little attention to the thoughtful and rational aspects of the pursuit. A true understanding of the college-choice process needs to take account of the very complex nature of the decision (and of what is being chosen), and to acknowledge the interplay of rational and emotional forces that are identified in theories of personality, adolescent development, and adolescent society.

People Who Influence Choices

A former Director of Admissions at Princeton has written that he "tried to keep a myriad of groups from mutinying. The coaches wanted more athletes, the faculty wanted more students with high SATs, the musicians more violinists, the headmasters more preppies, the minorities more diversity and the alumni more of their children" (Wickendon 1989, p. 154). This speaks of pressures and competing interests *within* an institution during the admissions process; it stands to reason that myriad interests are also at play outside of the institution during the college-choice process.

Student guides to selecting a college may exhort students to "take control" of the process and realize that "the college choice is yours,"

but even the purveyor of this advice recognizes the existence of a multitude of "influencers" who may have agendas of their own (Miller 1990, p. 21). Unfortunately, only scanty research evidence exists on how the various participants in such a decision actually contribute to it. It seems plausible that different people may play different roles at various points in the process. I dug for evidence regarding the configuration of decision makers and influencers at two principal points in the process—search that leads to decisions about where to apply, and choices among postadmission options. The effort met with but little success.

The American Freshman Surveys have asked students what was important in selecting the college they attended. The list has varied slightly over the years but has always consisted of a mix of institutional characteristics ("has a very good academic reputation," "offers special educational programs") and personal influences ("my relatives wanted me to come here," "a college representative recruited me"). The five or six personal influences included on the questionnaire have generally been marked "very important" by fewer than 10 percent of the students in selective colleges, with the number usually closer to 5 percent. (As noted earlier, two or three of the institutional characteristics tend to be marked as "very important" by a majority of these samples.)

The general practice of collecting this type of data after a college has been chosen (or, in the case of the American Freshman Surveys, following a student's matriculation) may have important effects on both the recall and the reporting of people who influenced a student's college-choice process. Influences early in the process of search and selection may have been forgotten by the time the process is completed. Furthermore, the questions frequently imply a focus on the selection of the particular college in which the student enrolled, not on the consideration and elimination of other colleges. Finally, many of the influences exerted by others are subtle and not likely to be realized fully by a high school student.

Family Effects

Researchers have given the college-choice process little attention as a family "political" process. Cottle (1991) portrays an intense family struggle during the early stages of the process. In the San Jose Family

Study, which posited four distinct family models for making college choices—delegation, democracy, blackball, and appeasement—the researchers reported that an accurate statistical prediction of college choices for their families depended on using the correct decision-making model for a given family. (Each model was represented by a different mathematical equation, although it appears that the delegation model was not tested.) Unfortunately, they did not report on how many families fit in to each of four models, the characteristics of families described by each model, or the college-selection outcomes associated with each model.

The amount of influence family members report having had in the college-choice process depends on whom you ask. Cottle (1991) reports that "each family member experiences the application process in a distinctive fashion" (p. 80). The Twin-Cities Family Study and the Southern University Family Study both found that family members often disagreed about who had the most influence or whether specific family members had equal influence regarding a variety of college-choice decisions. In the Twin-Cities Study, there was more agreement between mothers and fathers than between students and either parent about the levels of influence of each family member. Mothers agreed with their children slightly more often than fathers did. In the Southern University Study, statistically significant disagreement was observed in over one-half of the comparisons between pairs of family members; mothers and fathers were more likely to disagree with each other than either parent was with the student.

In both studies, students, mothers, and fathers were all more likely to assign the greatest influence to parents in determining the amount of financial resources that would be available for college. However, in the Southern University Study, parents were more likely to see themselves, rather than their spouses, as having disproportionate influence in this area in the minority of cases where they did not report equal influence. Most of the southern students saw both parents as having equal general influence, but one-third reported that their fathers had most influence in the area of finances.

In the Twin-Cities Study, all members of the family were most likely to credit students with the most influence regarding where applications would be submitted and where the student would enroll; the Southern University Study participants were more likely to say that the influence was shared among students, mothers, and fathers.

Fictional Accounts

As described earlier, the attention given to college choice in fiction often focuses on struggles between parents and students who have different goals pertaining to college. The encounters are highly emotional and stressful; usually the child wins the struggle, since this is literature directed to a teenaged audience. Amy (*The Bennington Stitch*) apprentices as a quilt maker. Augie (*My Life as a Body*) goes to RISD. Michael's father (*Everything Is Not Enough*) accepts his son's interest in fields other than business. Stephanie (*The Jell-O Syndrome*) resists pressures to enroll at MIT and chooses local Hyde.

But even when the child wins, it can involve emotional duress. George (*The Year of the Gopher*) persuades his father to accept his decision to postpone college and eventually enroll in a program leading to a career as a high school counselor instead of going into law. Early in the process, however, his father suggests the schools to which George should apply—all Ivy League. This causes George to reflect, "I couldn't help thinking that beneath all that free choice I was supposed to have was the old railroad. The engine was fired up and the seat was reserved, but it didn't really matter where I wanted to get off because the train wasn't stopping till the end of the line, and it was Dad who bought my ticket." He visits Yale during his paternally engineered tour of prestigious eastern colleges. There he sees a statue of Nathan Hale and later muses, "I didn't belong at Yale. . . . That wasn't my life, it was Dad's. I only regret that I have but one life to live for my father."

Perhaps the most emotionally turbulent conflict between a parent and a child occurs for David Smith in Klass's *Page Four*. It illustrates one of the many pressures that can compete with the college-choice process for a student's attention. David cannot decide what he wants to do after being devastated by his parents' divorce. His highly competitive father visits him and applies pressure to get on with the college-choice and application process. But his high school performance collapses; he bombs on his SATs; his counselor tells him college is out of the question and urges him to enlist in the military. When, in the last two pages of the book, he is finally inspired to overcome his reversals and apply to college, he uses "page four" of a college application to tell his saga of divorce, distress, and dislocation, "gambl[ing] on an admissions officer—with compassion—reading

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what I write. And if there is no such species, or if natural selection has eliminated all such admissions officers and kept on only heartless computer types? I have to take my chance." We don't find out what kind of admission officers he finds or how he fares in his application to "an Ivy, a small first-rate school, and a second-rate safety school—with a pretty good biology program."

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Getting Information about Colleges

How do participants in the college-search process learn about colleges, and what do they know? These questions have been approached through a variety of routes. Individuals have been asked what they need or wish to know about colleges, how they would like to obtain various types of information, or how they learned about specific institutions. Their perceptions of institutions have been related both to the characteristics of the institutions and to the individuals' exposure to different sources of information. In addition, there have been some limited studies of the information that people have about colleges and of the information that is provided by colleges.

What Students and Parents Want to Know

An extensive project dealing with better information for student choice was carried out with federal funding in the mid-1970s (Lenning and Cooper 1978). Students and parents were asked about the information that they would like to have during the college-selection

process. A questionnaire listing 64 different types of specific information about colleges, much of it dealing with policies and procedures with little information regarding the variety of benefits and costs associated with college attendance, elicited the following indications of strong interest by students and parents. (S indicates a strong interest by high school seniors, P by parents of high school seniors; the numbers in parentheses show how many specific types of information were listed under each heading on the questionnaire.)

Admission/dropout/transfer information (7)	
The basis on which students are accepted or rejected for admission to this college	P
Credit given by other colleges for courses taken at this college (transferability)	P
Financial aid information (5, no general cost information was listed)	
The typical kinds and amounts of financial aid given to each class	S
Information about students (7)	
None was very important	
General information (7)	
None was very important	
Housing information (2)	
Availability, cost, and student ratings of different kinds of housing	S P
Student services information (4)	
None was very important	
Information about out-of-class activities (6)	
None was very important	
Information about instruction and instructors (9)	
The way classes are taught (lecture, seminar, etc.)	P
Information about college major (5)	
When a major must be declared to graduate on time	S P
Minimum course requirements in and out of major	S P
Information about college's impact on last year's graduates (12)	
None was very important	

What Do People Know about Colleges?

Little evidence exists, however, about the extent or accuracy of the information about colleges that the participants in the college-search process actually use in making decisions. Misinformation can result

from a failure to obtain information directly (making faulty inferences from other information instead); misunderstandings or misinterpretations (due to insufficient comprehension or confusing presentations); or misrepresentations by the providers of information.

Costs and Financial Aid

A national survey by the Council for Advancement and Support of Education (CASE) (1988) revealed that students overestimated the cost of tuition, fees, and books by an average of almost 250 percent for public four-year institutions and by 33 percent for private four-year institutions. Relatively large percentages of students also gave incorrect answers to general questions on financial aid policy.

High school students tend to receive a substantial quantity of promotional materials from colleges, with high-ability students experiencing a deluge. The 1984-85 Transition Study reported that once a student's name is "picked" by a recruitment service such as the Student Search Service, an average of about 20 institutions will send that student something.

Canterbury (1990) logged in his daughter's college recruiting mail for slightly more than nine months in 1989-90. By mid-January of her senior year, this student with B+ grades and PSAT/NMSQT scores in the 98th percentile had received 244 mailings from 170 colleges.

I asked a neighborhood senior in the class of 1990 to save the materials he received from colleges for me. He is a very good student (PSAT/NMSQT totaling 143 and an A average) with moderately strong extracurricular activities. He delivered to me approximately 90 percent of the mail he received, or slightly less than 300 pieces, including 90 unopened envelopes and an equal number of items that did not arrive in envelopes so I was unable to determine whether they had been read. Several of the envelopes he opened simply out of curiosity because they were from colleges that were in a recent NCAA basketball tournament or that were a National Basketball Association star's alma mater. He applied as an early decision applicant to one of the colleges to which his older brother had been admitted. Certainly a great waste of resources occurred in this particular case.

In 1989, 14 COFHE institutions administered the College Board's Admitted Student Questionnaire which asks students to rate the quality of information provided through 10 sources of information. Vir-

tually all of the students at each institution indicated that they had received information from the college's publications and from "college communications following admission." From 65 to 85 percent reported contacts with the financial aid offices and from 60 to 80 percent had visited the campus of the college that sent them the questionnaire. A majority of the students indicated that they had had contact with a student at the college, with a high of 90 percent at one college and a median of 70 percent. Contact with a faculty member, on the other hand, was reported by far fewer students: from 30 percent to almost 60 percent, with a median of 40 percent.

A review of research on what people know about federal financial aid programs during the search stage concluded, "it appeared students in grades 10 through 12 knew little about federal financial aid . . . although seniors did know more than sophomores" (U.S. General Accounting Office 1990, p. 19). Misconceptions and misinformation were judged to be as much of a problem as lack of information.

Perceptions of Costs

The Four-Cities Study found that high-ability students estimated that attending a COFHE university would cost almost $2,000 more than attendance at a COFHE college (median estimates). Parents estimated the difference to be $1,000. In fact, at the time, the difference between the two types of COFHE institutions in average tuition was $50 and $400 in total student budgets (including room and board, books, and supplies). Students thought they would graduate with a loan burden of $10,000 (median estimate); the median debt actually incurred by graduates of these institutions who had borrowed was closer to $8,000.

Misperceived costs can deter a student from applying to an institution or a type of institution. An analysis of American Freshman Survey data for a subset of 13 COFHE institutions indicated a slight erosion of middle-income students at these highly selective, high-priced institutions over the past decade; a similar erosion was found for the public universities in the American Freshman Survey data set. This research examined data from the 1987 Parents Study and found that students in middle- and upper-middle-income families were less likely than would be predicted to apply to a COFHE institution. Compared to what families in the same income groups were actually paying at such schools, these parents were likely to overestimate what

it would cost them to have a student attend such a school (Schapiro, O'Malley, and Litten 1990).

The Carleton College Price Studies compared the prices that students associate with particular colleges in a set of 18 institutions (Carleton's principal competitors) to the actual prices of these colleges. Among these high-ability students, who were well into the college-choice process, the average relative ratings of institutions' prices were generally accurate—that is, the more expensive colleges were viewed as such. However, a few noteworthy exceptions appear on the plots of these data: some of the most prestigious eastern institutions were believed to have higher prices than they actually do; some lesser-known midwestern institutions were judged to have lower prices than they do. No measure of participants' general familiarity with the institutions was reported, nor were data given on the amount of variance in the estimates of prices that occurred for individual institutions.

Information Used During College Search

In the Penn State Study, students with the highest test scores were much more likely than other students to report that high school counselors were primary information sources. The Six-Cities Study of high-ability students asked where students had obtained information about their first-choice institutions. A majority listed general reputation, college publications they requested, visits to campuses, and current college students; slightly less than a majority listed published guides, college admission officers, high school counselors, and nonrelative alumni. About one-third identified a parent as a source of information.

Preferred Sources

Both the Six-Cities and the Four-Cities Studies asked high-ability students about their preferred sources for specific types of information; in the former, parents were also questioned on this topic. The Six-Cities Study asked its participants about sources for specific information about colleges, and the two generations agreed on the preferred media for some of them and diverged for others. Both students and parents reported that the single best source of financial infor-

mation was a college admission officer (financial aid officers were not listed); for fields of study offered at a college, it was a college publication; for career outcomes, it was college alumni; for information on social atmosphere, it was current students; and for a college's general reputation, high school counselors were preferred. Parents were inclined toward alumni for information about the faculty's teaching abilities; students tended to prefer getting such information from either a high school counselor or a current student. For information on academic standards, students would again turn to their counselors, whereas parents were most likely to consider college faculty as the best source. The researchers theorize that when the two generations differ in their preferences, it is due to social-distance phenomena—for example, parents are more likely than students to have dealt with college faculty and alumni in the past, which would make them more comfortable using these sources of information.

The Four-Cities Study asked students which information sources would best serve various functions during the college-selection process and why. For basic information about what a college is like, a friend who attends the college was most likely to be selected, followed in incidence by a visit to the campus, college guidebooks, and a college admission representative. For information on the potential fit between a student and a college, a friend at the college and a visit were the only two sources that received substantial endorsement. For information on how two or more colleges compare, college guidebooks were overwhelmingly the favorite source, although high school counselors were selected by a substantial number of students. Parents and current high school friends were not likely to be among the preferred sources for any of these types of information, and indeed, were high on the list of *worst* sources.

The students said that they preferred the sources of information noted above for one or more of the following reasons:

1. They provided information tailored to [my] specific interests and needs;

2. They provided information or evidence of how the college might affect [me] and [my] future; and

3. They have accurate and complete general information about a specific college.

Several other reasons for choosing particular sources of information were also cited: they provide accurate and complete information on

many colleges; they (in the case of individuals) show a willingness to help a student evaluate institutions; they permit a student to evaluate the values and biases of the source; it is easy for a student to relate to the source. These data are reported in Litten and Hall (1989), which contains a detailed discussion of how friends who currently attend a college embody many of the characteristics valued in a source of information. More recent research by Hayes (1989) also cites the experiences of friends and siblings as the most important source of information about colleges, because these individuals "typically have similar backgrounds and interests so [friends] become extremely credible" (p. 24). Many of us in education believe high school counselors score high on several of these dimensions, even though they fail to make many lists of influential people reported by students in college-choice research.

Perceptions of Institutions

How an institution is viewed can depend both on what is known about that institution and how the information is obtained.

Effects of an Institution's Characteristics

The final stage in the 1984 Seniors Study was an analysis of how the characteristics of individual institutions, in the four areas described in Chapter 3, affected students' perceptions of the institution. The researchers discovered the following relationships:

1. Academic quality—ratings were highest for institutions that had high scores on an index of academic quality based on eight specific academic characteristics (for example, average SAT scores, admission rates, retention rates, graduate school attendance rates); large graduate schools in relation to the size of the undergraduate college; and relatively more men than women.

2. Personal contact and undergraduate emphasis ("personalness" in the researchers' parlance)—ratings were highest for institutions that were small, private, rural, far from a student's home, and had relatively more undergraduate than graduate students enrolled.

3. Life-style—ratings were highest for institutions that were high on the academic quality index, large, predominantly undergraduate, and balanced between men and women.

The researchers found that the other factor that affected how attractive an institution was—location—was difficult to relate to specific institutional characteristics. Recall that, in this study, academic quality was twice as important as any of the other three factors in predicting preferences for an institution.

Both an institution's published price and what its price is believed to be in relation to its competitors' appear to be related directly to how students view its quality; the higher the actual price or the perceived relative price, the higher the perceived quality. In the Carleton College Price Studies, the relationship between an institution's price and perceptions of its quality appeared to be quite strong. However, perceived quality rose less quickly with price for some groups of students than for others. (Groups were defined by region of residence and application behavior toward Carleton.) The plots of price and perceived quality show a positive relationship. Several institutions fall well off a regression line for the two variables, however, indicating a lack of correspondence between price and perceived quality. The researchers did not report correlation coefficients for these relationships. Unfortunately, these data do not show whether price directly influences perceptions of quality or whether relative price levels are associated with other characteristics that are used to judge quality.

Effects of Sources of Information

Some sources of information appear to have more influence on how a college is viewed than others. A 1984 study of students admitted to Colgate University found that many different sources of information appeared to be related to how the students perceived the institution's quality (Kealy and Rockel 1987). (It should be noted that the measures of exposure and impact were somewhat "soft"; they were obtained from student ratings of effectiveness, negative to positive, or usefulness, not useful to very useful, without a consistent measure across the different sources of information.) Four general areas of quality were investigated: academic reputation/quality, social life or atmosphere, location of campus, and athletics. Some sources of information were related to perceptions of all four areas, whereas others had an impact only in a specific area. The sources with the most powerful effects on perceptions of academic quality were, in descending order: (1) the college catalog, (2) a visit to the campus, (3) high

school teachers, (4) current students at the college, and (5) alumni of the college. The sources with the most powerful effects on perceptions of social life were: (1) a visit to the campus, (2) the college catalog, (3) current students at the college, (4) high school friends, and (5) quotes from current students in college publications. These findings vary somewhat from those obtained from the studies of preferred sources of specific types of information reported earlier. Relatively high among the top 10 in impact on perceptions of quality across all four areas were ratings of the college catalog, high school friends, and, most important, the campus visit. Students' ratings of the college's admission officers were not related to their ratings of college quality in any of the areas.

Reactions to Information from Colleges

The 1984-85 Transition Study reports that

> Students are cautious consumers. They do not accept at face value the information they receive. For example, 40 percent of the college-going seniors we surveyed, when asked about college publications, said they felt the material does not "tell you what is really important about college." More troubling is the fact that about 40 percent doubted the accuracy of the publications. (pp. 14-15)

In some focus groups conducted by the author, college admission officers were regarded very favorably by students as sources of both information and counsel; the officers were perceived as people who were concerned about the welfare of the student, not simply as recruiters. On the other hand, in a group of parents, much more skepticism was expressed. One parent likened admission officers to the mountains of recruiting publications that his daughter was receiving by referring to the former as "walking glossies."

Perceptions of the Admission Process

A survey conducted for the College Board asked students how important they believed criteria were in college admission (Response Analysis 1978). Two of the criteria dominated all others—grades or academic standing in school, and SAT results (85 percent and 65 percent, respectively, said these had a great deal of importance);

following distantly (listed by fewer than one-third) were the academic reputation of a student's high school, teacher recommendations, and impressions made during an interview. When asked what admission criteria should be, grades/academic standing was the only criterion that a majority said should receive a great deal of attention (almost three-quarters gave it this rating); fewer than one-third of the students thought any other criterion should be given great weight. The responses of students to these questions did not vary much across race, gender, or family income. Not surprisingly, an emphasis on grades was more likely to be endorsed by students with high grades.

A study of parents who, with their children, visited selective, private institutions, primarily in the Northeast, found that of 10 admission criteria, the high school transcript was most likely to be identified as most important in college admission (38 percent), followed distantly by SAT scores and class rank (Reynolds 1980-81). These parents were not asked what should be most important.

High school counselors have told me that although college admission officers often claim test scores are secondary to high school performance in determining admission to selective colleges (Blackburn 1990, describes admission officers' lore on this topic), their behavior often runs counter to these assertions. The counselors report that admission officers frequently begin responses to inquiries about an admission decision with reference to the student's scores. These counselors also believe that test scores, when they are inconsistent with the high school record, can do more to lower a student's chances of admission than to raise them.

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Participating in the College-Choice Process

No systematic studies have been reported concerning the amount of time and money devoted to investigating and applying to colleges. A counselor in a District of Columbia preparatory school advises students that applying to college will require the amount of time they would devote to a senior year course; one student concurs, "not quite an AP course—more like a regular course with lots of papers" (personal communication from Katharine Hanson). Lamson estimated that if students spend approximately 10 percent of their time searching for a college during a period of 18 to 24 months, the figure compares favorably with what people invest in other major searches, such as a job search.

How Much Does It Cost?

A very rough estimate can be made of the out-of-pocket expenses and the opportunity costs of the time spent by an average applicant to highly selective colleges (four applications). A recently published

guide to selecting a college (Miller 1990) suggests that a student spend 40 to 50 hours during the senior year investigating colleges and examining his or her objectives, exclusive of campus visits; the activities and exercises suggested for this undertaking, however, appear to require at least twice that amount of time. However, the estimate below uses the hours given in the guide, and a student wage of five dollars for the economic value of this time if it were put to other productive use. (This might be low if the alternative use of time were studying, which could lead to a merit scholarship.) The estimate uses midpoints of ranges and is conservative regarding such items as the number of times admission tests are taken.

Time spent in college investigation and self-examination (45 hrs.)	$225
College guidebooks	$25
Application fees ($30)	$120
Admission tests (two sittings at $13 each)	$26
Achievement tests (three at one time)	$21
Study/review for tests (10 hours)*	$50
Preenrollment visits (assuming three trips at $300/trip, which is low if parents are also involved or more than one distant college is explored)**	$900

* Commercial test-preparation courses are not assumed.

** No private admission counseling is assumed. Such counseling may cost between $200 and $1,000.

This comes to almost $1,400. A tally reported in the popular press for a student in California came to $4,674, with test-preparation courses and private counseling included, but with no value placed on the student's or parents' time (Schurenberg 1989).

To be sure, the expenditures on college choice do not result merely in the selection of a collegiate option; a great deal of valuable learning about self and society may occur during the process. Determining whether the expenditures are worthwhile, however, requires more precise information on actual costs for typical students (not just estimated averages or extreme examples) and actual results for the participants in the process. We could then assess alternative methods of college choice and admission, as well as alternative means of achieving the outcomes beyond college choice and admission that the process produces.

In an extensive criticism of the college-selection process written by a psychiatrist who has dealt with young adults (Sacks 1978), one suggested improvement is greater variance in admission deadlines and notification dates across institutions. On the other hand, high school counselors sometimes complain that existing differences in admission requirements and deadlines cause students to divert resources, especially psychic energy, that could be better used to explore more fully their collegiate options. Instead, students expend considerable energy just keeping track of logistical details such as varying application deadlines and requirements for supporting documents and data.[1]

Psychological Costs

In addition to the paucity of data about the financial costs of college search, there is also little information about participants' feelings concerning the experience. The psychological costs may be a considerable component of the process; one for which a dollar amount would be difficult to establish. The media tend to highlight the stresses involved with headlines such as "For Student and School, Admission Process Proves a Cause of Ever-Mounting Anxiety" (Dowd 1985a). And, not to be outdone by the media, the advertising for Twentieth Century Fox's comedy *How I Got Into College* proclaims that its viewers will "experience the torture of meaningless exams that will determine your entire life," witness "lies" and "corruption," and be treated to "a horror story so intense, so barbaric and so frightening . . . it will have you running to your local Army recruiter."

The Four-Cities Study included several items concerning the college-selection and admission process. The great importance attached to college choice by the participants was noted earlier. In addition, three-quarters of these high-ability students agreed that "it takes a lot of effort to find out whether a college would be right for you," and

1. As this monograph goes to press, the Justice Department is investigating pricing, financial aid and admission practices at a number of private colleges and universities. In this climate, agreements between institutions, such as those covering uniform application and notification dates, may be judged to be in restraint of trade.

one-half agreed that "college applications are difficult to complete" and "going to college is scary." (About one-third disagreed with the latter two statements.) About equal numbers agreed and disagreed that "high school seniors have too many demands on their time to fill out very many college applications."

Cottle (1991) observes that a student in the process feels "pressure from every corner of his or her life." His account of the Leland family during the college-selection process shows extreme distress on the part of parents and children. The exchange between the parents that is recounted is rife with tension. The father calls the entire system, including college admission, "a crap shoot." The mother displays "a sense of being tired with the college entrance process, and it has only just begun." The daughter senses that "everything [her parents] have tried to achieve seems to rest on the college admissions decision, and it does little good to mutter words like, 'why can't they just accept me for who I am, rather than where I get in?'"

Test Anxiety

Admission tests are frequently singled out in the media and in fiction as one of the most stressful aspects of college admission. As Bliss (*Blissful Joy and the* SATs) studies for the SATs,

> Her mind reeled. The words swam. She knew what they meant, she could use them in a sentence, she could explain them, but she could not deal with them as they were on the test. Shot at her as if by a firing squad, isolated, threatening, and unreal. After a few minutes of looking at them, they lost all meaning. Her eyes dimmed with nerves and hopelessness.

She retires for the night, and snuggling against her dog, she whispers, "You are to affection as the SATs are to misery." Amy (*The Bennington Stitch*) describes herself as an "examophobe," which is "a handicapped person" and confides to a friend that the "SATs are to disaster as deluges are to floods." In spite of recent research evidence to the contrary (Smyth 1990; Snedecor 1989), SAT coaching programs are seen by the authors of some novels as effective means of dealing with these anxieties and of raising test scores (*Blissful Joy*, *The Bennington Stitch*).

Contrasting with the grim pictures painted in fiction, a survey of SAT takers in the mid-1970s reported that although slightly over one-tenth said they disliked the exam, an equal number said they enjoyed

it; over three-fifths of the students surveyed reported no strong feelings either way (Response Analysis 1978). Admission tests, especially the SATs, which are most likely to be associated with selective (that is high-rejection-rate) institutions, appear in part to be a convenient scapegoat during the college admission process; the SATs may be to the admission process as dining hall food is to the college experience—a focus for ritualized complaining about generalized frustrations or a medium for emergent cynicism among otherwise contented late adolescents. Anxieties due to the ambiguity of the role of the tests in the admission process may well induce some to this hostility.

However, even if admission tests were relatively ineffective in predicting freshman-year performance, they nonetheless enable colleges to sift through a surplus of similarly qualified candidates, make decisions that are not likely to be wrong, and then justify those decisions via commonly accepted symbols—standardized scores. The high correlation between test scores and other indicators of potential performance means that using scores for decisions, or at least to justify and communicate the basis for decisions, will not produce much error; that is, admission will not result in the acceptance of many students who would do poorly, even if it does exclude students who could do well. In a selective admission situation, nonadmission of students who could do well is likely, regardless of the basis for choice. Test scores help depersonalize this painful reality. If the test did not exist, something else would probably have to be devised to serve the role these scores play as a vehicle for communication between parties to the admission process.

Parental Pressure

It may be that most of the stress of the college-selection process is experienced by parents or is induced in students by parents. The fiction cited earlier abounds with manifestations of parental anxiety about choosing and getting into the right college. The author recently talked with a student who was on her way to visit a college that had put her on its waiting list. She was fairly excited about going to college. (She had applied to three colleges and received one offer of admission.) She was brimming with resentment, however, over the pressures she felt her father had imposed on her, especially suffering through an SAT preparation course that meant sacrificing some valued extracurricular music and sports activities. One admission officer has

been quoted as saying, "admissions test preparation courses have become the 'orthodontia' of the current generation of parents—a symbol of their care for their children" (Forte 1988). (Or, perhaps, protection of an investment they seek to make in future status that they can derive from their offspring.)

In group interviews conducted with parents of high school seniors in the mid-1980s, the participants were asked to "free associate" with the phrase "applying to college." (The information was collected in an unpublished, confidential market research report and is used with the permission of the private college that sponsored the research.) The mothers' group gave several positive replies, such as "growing experience," "challenge," "exciting," "lots to learn," and "togetherness." However, negative terms, such as "pressure," "tension," "confusing," "stress," "fighting," "misery," "hassle," "time-consuming," "unnecessary evil," "nerves," "expensive," "anxiety," "difficult," "wish it were over," "is it necessary to put kids through this?" and "love-hate relationship with child" dominated the mothers' list. The fathers' replies were all negative: "grief," "tension," "stressful," "constant harping," and "complicated."

Stress

Psychiatrist Herbert Sacks has suggested that a great deal of stress is produced en route to "Bloody Monday," the day on which admission notices from most selective colleges are mailed out (Sacks 1978). He considers the anxiety to be excessive and to be reducible by modifications in the system of college admission. His evidence of stress comes, however, from an extreme segment of the student population who were in psychotherapy for a variety of reasons. Furthermore, he acknowledges that anxiety is likely to be an integral component of the developmental tasks that confront late adolescents, with college selection and admission simply serving as a focal point. He goes so far as to say, "the emancipation experience mediated by the admissions crisis is a rite of passage. This developmental hurdle seems to be so necessary in our society today that if the institution of college did not exist, it would have to be invented" (p. 45). College freshmen have told me the process is difficult, but they also state that such difficulty is probably unavoidable when making a major choice among many options for the first time.

Little information is available about the extent or severity of college-choice-induced anxiety, or the degree to which such stress is necessary or productive. We do not know the extent to which alternative systems would produce as much developmental gain, with less risk and psychic expense for those who experience it.

Moreover, if some students experience stress, others do not. The following is a fictional synthesis of extensive interviews with college students:

> I didn't really *choose* to go to the University of the West. I just sort of ended up there. I knew I was going to go somewhere, so I started asking all my friends where they were going, but they didn't know either. I even went in to talk with our guidance counselor. . . . She had gone to Vassar and kept pushing all the Ivy League schools. I started suggesting some of the big midwestern schools, something a little closer to home, but she said I was "eastern school caliber," which I wasn't.
>
> That little talk started me thinking about what part of the country I wanted to be in. Then I remembered a neat family vacation we had taken in Colorado. . . . I remembered the good vibes I'd had in the mountains. . . . So one night I said to myself, "Why not go to Colorado? That would be a super place to spend four years."
>
> The next day I went to the library and took out a copy of Lovejoy's College Guide and looked up all the colleges in Colorado. I finally ended up applying to two of the smaller state schools, to a couple of private colleges, and, just to be safe, to University of the West. I figured that someone would accept me.
>
> The rejection letters all came the same week. . . . I got accepted to one little dinky place that I didn't want to go to anyway. The last letter to arrive was from University of the West. They said that my father's income level made it impossible for them to grant me scholarship aid, but that they would welcome a student of "my capabilities" if I could finance my own way. After all those rejection letters I wasn't quite sure what they meant by "my capabilities," but I did understand the financial bit and I thought I could swing that, or rather that dad could; so I wrote a letter back telling them I would come. That's how I "chose" my college. To me, the University of the West was a kind of a "nonchoice." To them, I guess I was just one more cash-paying student. (Davis 1978, pp. 31-32)

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How Much Do We Know About College Choice?

A flood of ink has been devoted to the subject of college choice—guidebooks on how the process should be carried out, researchers' studies of how it is done, journalistic forays into the "jungle" of college admission. In spite of all the attention, however, we do not have a very satisfactory understanding of just what is done by whom, and why. Our telescope has turned out to be a kaleidoscope with lots of brightly colored pieces that form engaging but shifting patterns. This chapter is a critical reflection on what we do know about how students choose colleges and on the ways in which we have obtained our information. I will also explore some possible improvements in the system, based on our present knowledge of how people behave and why.

The generalizations we seek regarding the college-selection process have been purchased at a high cost. Our research is spotty and often narrowly conceived. Although its statistical character lends an

aura of scientific validity, our quantitative research is passionless and fails to deliver a true sense of human beings making complex decisions while balancing many competing forces. Media and fictional accounts, on the other hand, focus on the poignant—dramatic instances that move us, but leave a hollow sense that only part of a broad picture has been revealed. Undoubtedly, due to both accessibility and the appeal of the message, the perspectives of the general public and of the engineers of public policy are most likely to be informed by the media. High school students are more likely to read young adult novels than research reports.

Broadening and Deepening Our Understanding

This monograph argues that we should attend to all available sources of information about college choice, be they research (surveys, clinical studies, ethnographic observations, group interviews), literary accounts, or journalistic investigations. Our research questionnaires should reflect the concerns that the ethnographers and novelists have observed. The Pittsburgh Study, during which students were interviewed every two weeks for the Office of Naval Research, set a research standard that has not been replicated in over a decade. (In a promising development, Don Hossler and Jack Schmit at the University of Indiana are currently engaged in a longitudinal study of high school students. Although the project does not involve interviewing students as frequently as the Pittsburgh Study did, the research will extend over an even longer period in its subjects' lives.) Moffatt's (1991) extended participant observations at Rutgers provides an exemplary model that should be replicated at the high school level. And we need to learn about other families in the same way that Cottle (1991) described the Lelands' involvement in college choice.

Hossler, Braxton, and Coopersmith (1989) described the roots of college-choice research in three traditions—economics, sociology, and institutions' market research. Research on college choice, and the interpretation of the findings, needs to be informed by additional theoretical perspectives. Both the literature of social science and fiction portray late adolescence as a time of enormous pressures, personal and social. Viorst (1986) observes that "adolescents, in this letting-go stage of life, experience 'an intensity of grief unknown in

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previous phases'" (p. 167). Much of students' college-choice behavior constitutes an effort to deal with these emotions, to balance competing forces efficiently and effectively, and to accommodate the variety of interests that press themselves upon the student. Theories of adolescent development (Havighurst 1972; Malmquist 1985; Muuss 1988; Nielson 1987) and of adolescent society (Sebald 1977) provide critical insights into the various internal forces and external interests that impinge upon college choice.

A substantial portion of the college-choice process occurs within the family, a social unit with its own structures of power, influence, and rewards. Sociological and psychological theories of the family can contribute important perspectives to understanding college-choice behavior (Cromwell and Olsen 1975; Youniss and Smollar 1985). Parents' proclivities for achieving status and self-fulfillment through their children is an aspect of family life that figures prominently in fiction concerning adolescents and should inform the research on college choice.

Behavioral Considerations

Economic theory has provided a solid basis for examining the costs and benefits of college attendance, and, to a lesser extent, choices among colleges. Such theory needs to be supplemented, however, with greater attention to the differences in nonfinancial costs imposed by various colleges, and to students' assessments and handling of risk in the college-choice process (Murphy 1984; Litten 1986). We should explore the possibility that college provides critical social and economic insurance, and that similar forces and considerations operate in both the choice of a college and the decision to purchase life insurance; these are not simple cost/benefit calculations.

The assumption of rationality that underlies much of the economic, sociological, and market research on college choice should be augmented by the more comprehensive theoretical perspectives on decision making that take account of other aspects of human behavior (Simon 1982; Bell, Raiffa, and Tversky 1988). Theories of consumer behavior also provide an essential framework with which to interpret and evaluate college choice. These theories deal with the kinds of information people seek, the media through which they obtain it, how they evaluate it, and how they deal with the element

of risk (Bettman 1979). Failure to take account of such theory is one of the greatest shortcomings of both research on college choice and most colleges' marketing endeavors.

Finally, many people in the United States make judgments about an individual based on his or her alma mater (Fussell 1984). The implications of this fact could contribute a great deal to our understanding of college-choice behavior, especially the use of institutional reputation.

A critical perspective on the efficacy and efficiency of college choice in the free-market system of the United States could come from comparing our choice process with what occurs in other nations. Unfortunately, comparative evidence on how colleges are chosen in other societies is not readily available. (I suspect that we would conclude that any relative inefficiencies in our college-selection process are a small price to pay for the diversity of options and openness of choice that are absent in other, more rigid systems. The questions, of course, are how much inefficiency and with how much marginal benefit?)

Another vantage point from which to evaluate the ways in which college is chosen today is to use our historical experience in the United States. Such insight is constrained, however, because admission selectivity and multiple applications by students appear to be relatively recent phenomena. Lewis (1988) reports that as late as the 1950s, most institutions of higher education in the United States admitted almost all applicants. Both research on the topic of college choice (as distinct from access to higher education) and commentary in the media and professional journals appear to be relatively recent, as well. Any system of such recent vintage, which grew by default rather than by design, could probably be improved. Some suggestions in this regard are explored in the final chapter.

How Do Students Seem To Choose Colleges?

Participants in the search process appear to be influenced by two kinds of considerations: academic/intellectual and pragmatic (that is, consideration of career, social status, and happiness). In view of the important role that a college education plays in producing such prac-

tical outcomes, this is undoubtedly as it should be, despite the discomfort it induces in academicians. Research has paid inadequate attention to the role that immediate social considerations may play in college choice. On the other hand, the pronounced role of academic considerations in the findings of much research may be partly due to the phrasing of the questions and the lists of "important" considerations that questionnaires tend to include. Most research to date has not clearly distinguished among the criteria by which colleges are first considered, then applied to, and eventually selected for matriculation. Long-term (investment) benefits and costs, both financial and nonfinancial, may disproportionately drive the earlier stages of college selection; short-term (consumption) considerations and financial costs (especially for students receiving financial aid) may become more important when final choices are made.

College choice appears to be grounded in a sort of holistic pragmatism. Some specific benefits and costs seem to be given consideration, but the final choice is likely to be based as much on a feeling of well-being, or at least a lack of discomfort, as on any rational calculation of costs and benefits or systematic ratings of institutional characteristics. In view of the difficulty of evaluating the subtle and complex processes and outcomes of a college education, a decision based on such intangibles that produces a sense of well-being (comfort, confidence) may be as much as we could ask for. As one counselor told me recently, "We counselors have a difficult time judging quality in a college; why shouldn't it be almost impossible for a student?" Furthermore, given the broad impact that a college experience can have on a student's life, both immediately and in the distant future, why should college choice be other than the combination of "head and heart, reason and intuition" noted by Reynolds (1980-81)? Her description of the process is probably the most accurate available and represents a quite reasonable approach within our particular system of higher education:

> Choosing college can be viewed as a balancing act. On one side of the scale is the student as thinker: rational, seeking information, eventually becoming well informed. This is the student as the reader of catalogs and view books, the maker of lists, the organizer of strategies and schedules.
>
> On the other side of the scale is the student as romantic, the poet on the quest for the perfect experience. This is the student as the intuitive decider seeking vibes, tensions, feelings that "this must be

> the right place." It is the emotional chemist, sensing the responses of admissions officers, prodding friends and counselors for opinions to ascertain the atmosphere on campus and the likelihood that this school or that school will provide the perfect environment (p. 26).

A "poet" looking for "perfection" probably overstates the intuitive element in students' pursuits of reasonable environments in which to be complete human beings. Reynolds, who is an independent college counselor, also probably encounters students who are much better informed than most. Apart from these excesses, however, the description rings true in both its scope and its balance.

Although our survey research does not tell such tales, I detect a profound disquiet in many of my conversations with people who are involved in the college-choice process; for some it is closer to the surface than for others. Students who are headed for college frequently feel more oppressed by the pressures and anxieties of the process than exhilarated by the prospects of college. Anecdotal evidence and fictional accounts suggest that parents can feel the pressures even more acutely than students do. Our survey research has failed to probe these phenomena effectively.

Elusive Benefits and Costs

Students and parents suspect that a college should be chosen on the basis of what it will do for a student, yet what they principally have to go on—and what much of the published advice tells them to consider—is how a college feels to a student. This produces a discomforting conflict. The benefits of college attendance are difficult to observe directly, and there is little comparative information regarding the differential benefits of various colleges.

All colleges tend to claim extraordinary benefits from attendance, although there is little evidence that different colleges produce distinctive outcomes. As a result, published guides on choosing a college tend to focus on differences in psychic and monetary costs: social environments that could cause stress, academic pressures, and financial requirements. We have reason to suspect that students and their parents pay close attention to these factors, in spite of the strong emphasis they place on academic quality and college outcomes when responding to questionnaires.

Reducing Risk Through Reputation

Many students appear to avoid the costs they believe would result from attending a college that is not well known or respected by seeking a prestigious institution (which for some students, may be defined in very local terms). In view of the benefits conferred on a graduate by others—for example, social status, employment—general reputation and prestige are bound to continue to be important and reasonable considerations when choosing a college. If the general reputation is inaccurate or compromises the quality of the choice process, the public interest demands a remedy. However, the inaccuracy of colleges' reputations among laymen would have to be demonstrated before remedial efforts would be justified, and this would not be easy to do.

Two means exist for correcting any discrepancies between reality and popular assessments of colleges. The first is to demonstrate, if possible, the value of attending colleges that are not highly esteemed and widely recognized (or the lack of relative advantages from those that are). The other is to inform the public more accurately about real differences among colleges—their particular and varying benefits, costs, and quality—and keep the information up to date. Such information would have to be sufficiently comprehensible, interesting, and persuasive to compete for students' attention in a congested information environment and to displace prejudices (or existing information and beliefs). Given these challenges, it is likely that general reputation will continue to play a central role in college choice in just about the same ways that it has in the past.

Students and parents indicate that small classes, which are most likely to be found in small institutions, are important to educational quality. Their behavior suggests, however, that many of them place greater value on the benefits offered by large institutions, especially visibility, prestige, and the social and sexual options noted by Moffatt (1991). These preferences exist in spite of research evidence indicating that more attention is given to undergraduate education and the most dramatic educational effects are achieved at small institutions (see Pace 1979, 1991). In addition, the great emphasis placed on specific fields of study when choosing a college suggests that the ideals of a liberal education, with its attendant exploration of options during college, may be sacrificed by many students.

Mechanisms of Self-Selection

Academic self-selection is a major mechanism for managing risk in the college-selection process. As mentioned, for example, students tend to choose colleges where the average admission test scores are not too different from their own. Easily used statistical information (for example, average SAT scores) that can assist students in making these matches is readily available in college guidebooks. As this monograph is being written, however, a movement appears to be afoot among some colleges to restrict the availability of such information in the interest of preventing simplistic conclusions about admission probabilities or institutional quality. The goals of the effort are well intended given that these data may be misleading if used in isolation. However, students need, and guidebooks on choosing colleges encourage them to seek, some indication of the academic atmosphere at a college—academic demands, pressures, competitiveness. The test scores of a college's student body constitute a reasonable, if imperfect, proxy for these phenomena, providing an efficient way of sorting through the extensive list of available colleges.

The costs of withholding such information about the academic atmosphere may exceed the benefits. Possible negative effects include greater disquiet or anxiety among students; more inappropriate applications (which may be part of the motivation of some of these reform-minded colleges—to be able to increase their admission selectivity by increasing their applicant pools); increased student reliance on other information such as rankings in guidebooks or the media; or employing expensive independent counselors. Theories of consumer behavior indicate that students will seek some simple indicator that permits comparisons of potential academic costs at various colleges. They will also look for an indicator that permits them to compare their own academic resources with what they will encounter among their fellow students—competitors for the rewards offered at a college—after matriculation.

Research has found more self-selection on the basis of admission test scores than on the basis of financial resources. (Self-selection on the basis of social phenomena—students' social and cultural backgrounds in relation to social pressures on campus—has not been assessed due to the difficulty of quantifying the latter.) This may be so because financial aid is widely advertised as a means of reducing the burden for families with limited financial resources. On the other

hand, "academic aid" for academically disadvantaged students is not as widely available, or at least not as heavily promoted. As a result, a student has to pay the full academic cost at selective institutions. Although campus tutoring services do constitute a form of academic aid, a disproportionate share of such assistance, and, to some extent, even of any "social" aid that is provided for students from nonelite backgrounds, is allocated to the indentured class on campus, otherwise known as athletes.

Fitting in. Participants in the college-choice process, and people who offer advice on its execution, place much emphasis on a match between a student and an institution, on fitting in. Such a preoccupation can sacrifice possible "stretching" or productive disjunction between a student's background and the collegiate environment. It is reassuring that many students, especially in selective colleges, seek cultural discontinuities later in their academic careers through foreign study, and report that such experiences are some of the most productive of their college careers. College attendance has undoubtedly freed and prepared students to accept such challenges with which they may not have been comfortable when emerging from secondary school and first leaving home. Perhaps, however, we might prepare and encourage students earlier to seek greater challenges, with their corresponding educational benefits, by placing less emphasis on fitting in to an institution and more on how to exploit or adapt to it.

Information and Influences

Little is known about the nature and accuracy of the information that students use, and the research on how students are influenced by various sources of information leaves some nagging doubts about its accuracy. Judging from students' responses to surveys, parents make a poor showing on many lists of influential sources. As one college senior confided to me while coding some admitted student questionnaires, "I've just come to see that as a freshman I really didn't realize how much influence *my* parents had on my choice of a college. I was aware at the time only of what they said, not what *they didn't say*. Their failure to actively support or even follow up on some of the colleges I mentioned greatly influenced the direction my college search took." Most students do not have this degree of insight, and

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the student quoted achieved it only several years after the fact. It is asking a great deal to expect students who are in the process of disengaging from their parents to report fully and accurately on the roles their parents played in this critical process. Likewise, when students are asked about important influences on the college-selection process, the gatekeeper role of high school counselors is undoubtedly underestimated because the questions in our surveys often refer to the final selection of a specific college. Overly focused questions, faulty recall, and students' limited insights can all contribute to a distorted picture of the college-choice process when viewed retrospectively through single-shot survey data.

Shortcomings of Available Information

Although there is plenty of available information about colleges, it often fails to conform to principles of good information for consumers. Much of what is available is too general to be relevant for a given student and too idiosyncratic in its portrayal of institutions. This is due in part to the self-serving interests of the principal providers of information, the institutions which disseminate information primarily to attract applicants. But those advocating increasing the information available to better serve the public interest can also be faulted for failing to heed what we know about how consumers process information. Bettman (1979) has pointed out some of the misconceptions common among even those who are concerned about the public policy aspects of consumer information:

1. Assuming that the consumer has a great deal of information-processing capacity and a great deal of time for processing (thereby overestimating the amount and complexity of processing that will be done);
2. Ignoring individual differences among consumers; and
3. Assuming that more information is always better and that information can be readily understood by consumers (whereas information that is too detailed or hard to understand or use is often ignored).

Bettman also criticizes the tendency of public-interest advocates to focus on the provision of objective data, when consumers are often concerned about subjective phenomena like style, comfort, and prestige.

Even objective data about things as basic as financial costs can be difficult to obtain in a manner that permits efficient comparisons across campuses. Theodore Bracken of COFHE recently conducted an informal review of the financial aid brochures of some selective colleges. In a personal communication to the author he reported that he found widely varying foci and inconsistency in the terminology and formats used to present similar data. For example, comparable income data were variously referred to as "family income," "combined income," "total income," "gross earnings," or "annual income." Examples of financial aid awards varied from specification of the dollar amount of aid given to a family with particular financial and demographic characteristics (with specifics that differed across institutions) to statistics on the percentage of families in a particular income group receiving financial aid. In deciding where a student should apply, families that might be eligible for aid are faced with a monumental task when trying to compare probable costs across institutions.

Information Bias and Information Gaps

Colleges have tended toward excess in the proliferating number of publications, videos, and other forms of promotion they produce. While the media have shown a manifest antagonism toward this escalation, students and their parents are ambivalent. The unsolicited materials are interesting, and occasionally informative, up to a point, but the completely uncoordinated assault has left many students and parents a bit bemused, if not cynical. I suspect that the self-serving appearance of much of this activity may have debased higher education in the eyes of the public and fostered a receptive attitude toward a variety of criticisms, including the investigation of collegiate price-fixing and collusion that is underway as this monograph is being written.

Students and parents manifest a desire for a *Consumer Reports* type of comparison of institutions. A few guidebooks approximate this approach and provide comments, judgments, or ratings of a variety of factors, academic and nonacademic. College personnel may quarrel with some of the details that are reported or the construction of some of the scales. Certainly many of the brief descriptions oversimplify the complexities of an academic environment, although probably not much more than do the colleges' own publications and

presentations. Be that as it may, the guidebooks provide a degree of consistency of information that is difficult, if not impossible, for the individual student to collect directly, even via campus visits.

A "Quick Fix" Approach

Understandably in a system that provides so many options, but so little assistance in assessing these options, consumers will be attracted to any information that sorts colleges. It is no wonder that rankings such as those produced by *U.S. News and World Report* are well received by the public. The recent move by that magazine to a more objective and comprehensive basis for its rankings is an improvement over the often marginally informed opinion with which it started.[1] Nevertheless, summary ratings of complex institutions inevitably do violence to realities, and *rankings* based on fine numerical distinctions are reprehensible.

Curiously, most other goods and services—restaurants and automobiles, for example—have generally escaped this compulsion to rank, probably because they either do not involve the long-range consequences of higher education or they are easier for the consumer to judge directly. Most consumers would consider an attempt to *rank*, rather than merely rate, the restaurants in a metropolitan area as ludicrous. The finer restaurants all provide high-quality fare with stylistic differences; good colleges do the same. (*Consumer Reports* warns its readers about spurious distinctions between closely ranked products that are far less complex than a college education.) However, to supplant such college rankings, with their appearance of objectivity, colleges themselves will have to provide more comparative information in a form that can be used easily, and the application-admission system will have to provide more opportunities for students to use it. The media are not likely to back off from their simplistic rankings, however. As one observer noted, "It appears that for magazines that cannot print photos of scantily-clad female models, an annual college

1. The considerable displeasure among educators over the *U.S. News* rankings may have abated after *Money* magazine published rankings based on obscure data that purported to represent value in relation to cost (Gilbert 1990). Not only are the costs used in the *Money* article inaccurate because they are not net costs after financial aid, but the outcome measures are also highly dubious.

ranking takes the place of the swimsuit issue. No question about it, college ranking sells copies" (Lau 1990).

Needed Improvements

Price should be among the most easily quantified and forthrightly presented information about colleges, but this is hardly the case. Although our financial aid system is admirably dedicated to equity and thoroughness, less-than-affluent families who are trying to choose among colleges should not have to complete the application process before they have an idea of how much different colleges will cost them. We should be able to eliminate the anxieties that this situation can produce, as well as inefficiencies that result when some viable college options are ruled out due to insufficient or inaccurate financial aid information. Consistent information from colleges, some simplified preliminary analysis tools (computerized and otherwise), and a widely accepted set of principles will contribute greatly to this end.

The Costs of a Laissez-Faire System

The logistical variations imposed by colleges (differences in application forms, required information, and deadlines) have been criticized by high school counselors as unnecessary complexities that deflect students' time and energy from more productive search activities. Although some students believe that different deadlines ease some of the pressures of the process by spreading particular tasks across a longer time period, they still must deal with the idiosyncracies of varying application forms and requirements. Certainly a major question related to the public interest is whether the marginal educational benefits derived from unique application forms and requirements are commensurate with the costs they impose on students. These costs may be justified if these particular forms and requirements improve the judgments made by colleges during the admission process (in which case the burden of proof should be on the institution) or if the effort required of a student when dealing with disparate forms produces a greater awareness of self and of collegiate options. Again, however, both the costs and the benefits of this laissez-faire approach should be weighed against other methods of engendering self-examination and understanding.

The Costs of Selective Admission

The idea of an efficient search process that proceeds until the student has examined a variety of options and selected one in which the greatest growth and the highest level of satisfaction are likely to occur is necessarily compromised by the practice of selective admission. When there is a relatively high probability that a student will not be admitted to his or her preferred college, classic models of consumer behavior do not apply. Certainly the relatively low enrollment rates of admitted applicants (admission yields) at some selective institutions increase these colleges' need for applicants. At the same time, the very low admission rates at some selective institutions increase the number of applications that prospective students at such colleges have to submit. The key public interest issue, the extent to which colleges need a surplus of applicants to produce an effective educational environment, has not been fully addressed in either research or theory. Michael McPherson and Morton Schapiro took a heroic first step in this direction with *Selective Admission and the Public Interest*, but more needs to be done.

Mechanisms that would reduce uncertainty for both the student and the college might permit greater efficiency in the search process without reducing the educational effectiveness of individual colleges or of the system. If each student made fewer applications, it is possible that students would still select appropriate institutions and colleges would select sufficiently heterogeneous classes. On the other hand, to the degree that colleges are selling selectivity per se, whether as a means to social status or career advancement, these "inefficiencies" are actually the substance of the process, and their reduction would not be tolerated by either buyers or sellers.

7

Some Public Interest and Policy Questions

In many ways, the college-choice process in the United States appears to be working quite well. Even though our most prestigious institutions turn down more applicants than they admit, a majority of our students report that they are enrolled in the institutions that were their first choices. We do not know, however, how thoroughly students search for colleges, how well-informed their decisions are, or whether the same outcomes could have been achieved with the expenditure of substantially fewer resources. Even if we had some of this information, we would expect to find vast variations across families and even within families.

Ascertaining how well the current U.S. system of selective college admission serves the public interest requires an assessment of whether the resources—time, money, effort, psychic energy, social interactions—devoted to the enterprise would be better employed in

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different ways, or whether a reallocation of these resources would deprive the nation of some currently realized benefits. Although insufficient data preclude answering this question, we need to pursue both the relevant investigation and discussion of the issues. Furthermore, several other questions need to be part of the inquiry and the debate. I will conclude with these questions and propose provisional answers to some of them.

Do Students Search Hard Enough for a College?

We have all heard numerous complaints that high school students are not very well-informed about colleges and do not spend as much time and effort as they should exploring their college options. We lack evidence, however, that the time devoted to a college search compares unfavorably with the time spent on comparable search activities. Furthermore, high school students are engaged in both personal and social activities that impose extensive time demands on them. These may appear inconsequential, or even superfluous, to adult eyes, but constitute critical components of the process of maturation and are essential aspects of human well-being. Greenwald speaks to this issue in *Blissful Joy and the* SATs:

> *Now there was a second test date circled in vermillion* magic marker on Bliss's calendar. Sibyl's birthday and the SATs. If she could do well on the SATs she would prove herself an academic success. If she could do well at the party, she would prove herself a social success. Bliss wanted to do very very well at both tests.

If students spent more time on college search, less time would be available for other activities. However, at the margin, we do not know which of these activities contributes less to a student's short- and long-term well-being (and therefore warrants less time). At the margin, we cannot determine the additional benefit to individuals and to society that might be expected from a reallocation of resources to additional college search. Does the present system lead to poor choices? Not according to students' reports that most are enrolled in their first-choice college. Furthermore, graduation rates in selective colleges tend to be very high, suggesting that present levels of search produce good results. (COFHE data indicate that almost 90 percent of the entering freshmen in these colleges graduate from the institutions in which they first enroll.)

Could, however, even fewer resources be devoted to college choice with no great loss? That depends in part on the probabilities of making a wrong choice and the consequences of such an outcome. The current success "rates" in selective institutions might be obtained more efficiently. On the other hand, general retention data (Porter 1989) suggest that there may be considerable "error" elsewhere in the system, even with present levels of search. Even here, however, it is possible to consider transfer to another college as part of an extended search process. A one-shot process is not necessarily most efficient.

Would More Extensive Search Pay Off?

If students were more thorough in their investigations of colleges, how might they, or society, benefit? The liabilities of limited search may be overstated by those who claim that choosing a college is one of life's most important decisions. James et al. (1989) used the 1972 Seniors Study data to determine that the earnings of the graduates of different types of colleges did not differ very much; the type of college people attended accounted for 1 to 2 percent of the variance in 1985 earnings. The researchers conclude that, in terms of earnings, "what matters most is not which college you attend but what you do while you are there." Pascarella and Terenzini (1991) reviewed 20 years of research on college outcomes and asked "Are institutions really that different in 'quality,' if by that we mean their ability to promote educationally desirable change in students?" They concluded:

> Among four-year institutions, our review consistently suggests that they are not. After holding constant students' entering characteristics, where students attend college appears to matter much less than what happened to them after they enroll. Across a considerable range of cognitive, psychosocial, and economic outcomes, few statistically significant differences in college impact are associated with such organizational and structural characteristics as institutional size, type of control, curricular emphasis, or selectivity. Where differences do exist, they tend to be small. The apparently general character of college effects on student change clearly implies that a substantial number of non-"elite" four-year institutions may be able to compete quite successfully with substantially more prominent and resource-rich institutions in diverse, educationally significant areas. (p. 637)

Pace (1979) also examined many years of data on the outcomes of college and concluded that "any large university has important sub-

environments that may have a greater effect on students' behavior than does the overall or total environment" (p. 130). A more recent analysis of the outcomes of college and the experiences reported by students in many institutions led Pace (1990) to the conclusion that in most cases, "what counts most in students' academic outcomes is not the type of college they attend, or where they live during college, but what they study while they are there" (p. 76). Outcomes differed across majors more than across institutions. Indeed, Horowitz (1987) has documented the enduring persistence, across many decades, of student subcultures within both colleges and universities that have powerful differential effects on their members.

These observations lead us to the conclusion that an extensive search process may be inefficient in that there is little effective differentiation across types of institutions, but extensive differentiation within institutions. Pushing the data further, however, Pace modified his conclusion to say that

> except for the selective liberal arts colleges [where outcomes were exceptionally high], students at other types of institutions engage in very similar activities and make similar progress toward various goals. It doesn't seem to make much difference whether the type of place is a big doctoral university or a small traditional liberal arts college. Diversity is not readily found between types; but diversity is very evident when one looks at single institutions separately. (pp. 139-140)

Although Pace (1990) did find substantial differences in student-reported experiences and outcomes across individual institutions of a given type (for example, research universities),[1] the kind of information that he gathered through extensive questionnaires is difficult for students to obtain, especially in a form that permits comparisons across campuses. Thus, more extensive search activities are not likely to produce better college choices unless they occur in a system that provides more credible, easily used data about real differences across institutions than is generally available today. In the absence of such

1. Such self-reported data always carry the risk that students are merely reflecting local myths about outcomes (e.g., student gains in specific areas) that would not be substantiated by more objective data. Nevertheless, self-reports cannot be dismissed out of hand as evidence and they are the best we have at this time. Furthermore, the possibility of assertions leading to achievements is also real.

information, students tend to turn to indicators such as general reputation, size, and type of control, that appear to have marginal utility at best for informing them about real differences among most institutions.

Is "Institutional Prestige" an Unreasonable Basis for Choice?

Studies of college choice have regularly found that general reputation, or prestige, is a primary reason given by students for their college choices. Use of this criterion has been substantially abetted by the recent proliferation of college rankings in the media. With a dearth of information that effectively documents real differences among institutions and the outcomes they produce, using general reputation, especially the widely disseminated rankings in the media, is a very reasonable strategy.

Many of the outcomes that people desire from college, such as good jobs and social status, result from other people's beliefs that the student has been to a high-quality college and is likely to have become a person of high quality as a result. It is impossible for people to directly assess all that they would like to know about an individual, and so the general reputation of his or her alma mater serves as a proxy for the person's knowledge, skills, connections, and other desirable traits. Institutions with excellent reputations (national prestige for highly mobile students, local stature for the less mobile) can do more to advance a graduate's interests than can graduation from an institution that may be "better" in some less recognized way. Few students, when facing the unknowns in their futures, can be expected to choose a college that might provide great personal growth, but seems unlikely to deliver the social and economic benefits that come readily, just by association, to graduates of more prestigious institutions.

Is the College-Search Process Properly Focused?

A defensible case can be made that the main purpose of college search and selection should not be to achieve an optimal match between a student and an institution, but to promote self-understanding and an awareness of options, how to choose among them, and how to make the most of a chosen college. If this is the case, an important public-

interest question is whether these objectives are being served as well as they might be by our present system in which most institutions engage in promotional activities instead of consumer education, and high schools provide minimal assistance in obtaining and evaluating information. A consumer education emphasis would focus on teaching students how to ascertain real differences among institutions, on evaluating the quality of information obtained, and on allocating reasonable amounts of resources to the process. The costs and benefits of alternative methods of achieving this type of education need to be examined before this public-interest question can be answered.

A Concluding Note

Choosing an institution that is known and respected by others is a rational means to achieving many of the benefits of college attendance. Acting on what feels right to an individual student is a rational means of satisfying the emotional elements of any well-rounded personality. Refraining from spending a great deal of time and effort identifying the "right" college from a set of highly complex institutions, when the particular subenvironment of an institution contributes more to an individual's experiences and college outcomes than does the institution as a whole, is a reasonable allocation-of-resources decision.

If we want students to make more reasoned college choices, we will have to give them more information about both specific institutions and the differences, if any, among them. If we want them to use that knowledge, it must be easy to use because getting and using information takes time away from other activities.

On the other hand, we might construct an admission process that reduces the presumed need for extensive search activities and the disquiet that comes if a student does not search diligently. (McPherson and Schapiro [1990] make some suggestions in this direction that are derived from an entirely different set of considerations.) We might also be able to exploit the college-selection process more effectively as an opportunity for teaching students about the nature of complex choices and the efficient and effective use of information and resources in such endeavors. Researchers from a variety of disciplines (see Lewis and Morrison 1975; Bettman 1979; and Wright and Kriewall 1979) have elected to study college choice when seeking to understand complex decisions; turning the tables by teaching

such skills through participation in this process could provide benefits far beyond improved college choice. Students' attention could also be focused not so much on strategies for choosing colleges, but on strategies for taking maximum advantage of any institution, academic or nonacademic.

At this juncture, the most important issue relating to college choice is not understanding how that decision is made, but clarifying the several (sometimes competing) functions that students and society need to accomplish at the point at which college choice traditionally occurs, and then to determine which structures, policies, and practices will most efficiently and effectively accomplish those objectives. There is good reason to suspect that the current laissez-faire system of selective admission enhances some benefits to individuals and society, while compromising others, and most likely wastes some valuable resources in the process.

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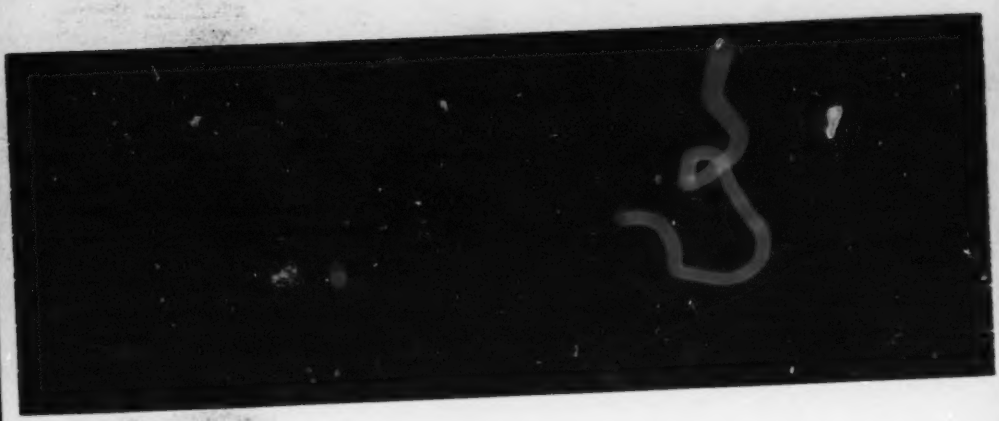

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